

U. S.
MILITARY
DOCTRINE

A Study and Appraisal

DALE O. SMITH

BRIGADIER GENERAL, USAF

FOREWORD BY
General Carl Spaatz

Duell, Sloan and Pearce · *New York*
Little, Brown and Company · *Boston · Toronto*

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LITTLE, BROWN AND COMPANY
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DUELL, SLOAN & PEARCE, INC.

*Published simultaneously in Canada
by Little, Brown & Company (Canada) Limited*

PRINTED IN THE UNITED STATES OF AMERICA

294040

To my father
ALFRED MERRITT SMITH

Acknowledgments

So many generous people have helped me with this book that it would be impossible to list them all. At the top of the list stands my wife, Virginia Posvar Smith, who has given me constant encouragement and detailed guidance. Others of my family who helped were my father, Alfred Merritt Smith, and my brother, Thor Merritt Smith.

Although I had been gathering material for years as a part of official duties at Air University, the actual writing of the manuscript was accomplished during leave-of-absence periods, week ends, and many long evenings. My willing assistant in these after-duty labors was Mrs. Martha O. Felts, who not only typed countless drafts but acted as a most efficient research assistant. Another who provided valuable secretarial help was Miss Louise J. Valone.

A great many people on the staff and faculty of Air University contributed to the development of this book. They were: Dr. James C. Shelburne, Educational Advisor to the Commander; Major General Dean C. Strother, Deputy Commander; Colonel Ronald F. Fallows of the Air Command and Staff School; Colonel Clanton W. Williams, of the Air War College faculty; Colonel Richard C. Weller, also of the Air War College faculty; Dr. Woodford A. Heflin of the Research Studies Institute; and many others to whom I am most grateful.

To Dr. Dallas D. Irvine, author of "The French Discovery of

Clausewitz and Napoleon," and Victor Gundos, Jr., editor of *Military Affairs*, in which Dr. Irvine's article appeared, acknowledgment is made for kind permission to quote from the article.

Major General Haywood S. Hansell, Jr., of the Joint Chiefs of Staff, Weapons Systems Evaluation Group, provided me with stimulus and valuable background material. Another who spurred me on was General Carl Spaatz, USAF (Ret.), who commanded the United States Strategic Air Forces in Europe during the second World War. Also Lieutenant General Ira C. Eaker, who commanded the Eighth Air Force in that same conflict. These war leaders interrupted a fishing trip to study the manuscript and offer sound advice. Another supporter was Lieutenant General Harold L. George, USAF (Ret.), wartime commander of the Air Transport Command. At one time or another I had served under the able command of each of these men.

The help from Lieutenant General Laurence S. Kuter, USAF, Commander of Air University, was most valuable. Having been intimately associated with the long effort to gain an acceptable air-power doctrine, he pointed out many gaps that appeared in my earlier drafts of this book. Finally, the individual who put most time on the manuscript, testing its contents and commenting on every page, was Brigadier General Bonner Fellers, USA (Ret.). His advice has been invaluable and his enthusiasm for the manuscript was a source of real inspiration.

The actual production of the manuscript took far less time than did its clearance for publication. Five copies were sent to the Office of Information Services of the USAF for this purpose. The major credit for guiding these copies through the many channels must go to Colonel James K. Dowling.

Foreword

THE study of military doctrine and policy has been largely neglected in America. Consequently, it is generally felt that national defense amounts to little more than a problem of manpower and equipment. But manpower and equipment alone do not produce an effective military establishment, any more than a well-stocked operating room and a man provide good surgery.

Backing up the surgeon is a wealth of ever-expanding medical knowledge. The knowledge is accumulated by innumerable recorded medical experiences and case histories, in laboratories, in hospitals and at bedsides. It is taught in schools at every level from health courses to advanced pathology. And this knowledge is published in a profusion of professional journals, textbooks, monographs and pamphlets.

The military profession has evoked no such broad interest in America. The development of military knowledge has been traditionally the exclusive province of a small band of regular officers. The safety of our isolation permitted us to survive and still avoid the individual responsibilities, as citizens, of learning, propagating and spreading military knowledge.

Today, far more than ever before, the problem of national survival is everyone's concern. Unless we all understand the military problems involved in national survival and unless we all lend a hand to the solution of such problems, America's very existence is threatened by the extent of our military ignorance.

Although General Smith's historical review of military doctrine and policy is necessarily a broad one, it should provide a starting place for all who wish to study further along these lines. A comprehensive bibliography is supplied for the new student of military policy. *U. S. Military Doctrine* also provides a sound background to the many influences at work which are today molding the military posture of the United States. I have no doubt that such study is vital to the security of our country.

If General Smith's book were read by every student, perhaps the problems confronting us would stand out in greater clarity and suggest solutions that would lead to America's salvation.

CARL A. SPAATZ

General, United States Air Force (Retired)

Washington, D.C.

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U. S.
MILITARY
DOCTRINE

1. Introduction

AN officer in the United States Air Force neither announces nor evaluates the military policy of the United States in any official capacity. This is done by our civilian chiefs at the top of the executive branch of our government. Let it be clear then that what follows represents purely my own views. As a career officer and student of the profession of arms, I have been intimately concerned with military doctrine and its relationship to national policy. But I have not been commissioned by any department of the government to make any pronouncements of military doctrine or policy.

Neither I nor the reader can be certain that these personal views are precisely those held by our leaders of government. Although I freely quote those leaders in an effort to relate national policy to military doctrine, it must be borne in mind that the quotes are extracts and lose some meaning in their brevity.

The presentation follows the evolution of military doctrine from Washington's "Sentiments on a Peace Establishment" to the present, showing what effect the various philosophies for waging war have had upon national military policy. Works of significant military authors were examined in an effort to trace this doctrinal development, and the writings of statesmen and historians were used as the basis for abstracting the concurrent military policy.

The terms "doctrine" and "policy" relating to military activities are often confusing and it is well to redefine them in any treatise.

For the purposes of this study, doctrine refers to the philosophy and principles for waging war *as held by the military*. There is seldom complete unanimity regarding doctrine. Even when doctrine becomes blind dogma, as the pre-World War I French Army doctrine of the *offensive à outrance*, there are always military elements that oppose it by advocating other principles, as, in this case, the concept of Grouard,* who objected to the Foch doctrine of attack at the outset, recommending instead the counterattack.

Military doctrine is a body of concepts and principles for waging war which have achieved enough official support to be taught in service schools and which have gained acceptance at the highest staff levels. From this doctrine war plans are designed to fit any particular war threat. One might say that military doctrine is the school of thought on war which is in vogue at any one time. Some aspects of doctrine, as in architecture, are quite changeable. Doctrines of offense versus defense have sawed back and forth as often as have doctrines of classic versus modern architecture. But the military oscillation is usually based on the evolution of various weapons and is less subject to public opinion.

Other doctrines, usually referred to as principles of war, have stood the test of centuries and seem to many students almost as immutable as those laws of natural science which apply in all schools of architecture. Yet war deals largely with people as opposed to things and can never rest on principles as exact as those of physical science. Social scientists are well aware that laws of human behavior must be well hedged because life persists in breaking away from the past and becoming unique. Yet this is the exception. In the majority of cases, humanity will fit predictable patterns which underlie the principles of war.

* Liddell Hart, *Foch: Man of Orleans*, London: Penguin Books, Ltd., 1937, p. 61.

Moreover, many aspects of war are strictly physical and follow precise scientific laws. And principles take into account such physical facts. For example, the principle of concentration of force to strike at a critical time and place is analogous to Newton's law of action and reaction.

When a doctrine is under question and being opposed by new views, the new idea is usually referred to as a concept. More precise diction would call this an hypothesis, but this word is seldom used in military parlance. For our purposes, the term "concept" will be used. A concept has not arrived at the level of respectability achieved by doctrine. There can be no way of telling, however, when a concept becomes a doctrine, for even doctrines vary from one armed service to another and from one nation to the next. The concept of strategic air war began with Trenchard and Mitchell during the latter days of World War I. It was clarified, consolidated, and spread widely by subsequent writings of Douhet, Mitchell and others. Then the concept became a rather questionable doctrine of the army's Air Corps Tactical School at Maxwell Field, Alabama, as opposed to the far more authoritative doctrine of the ground offensive held by other army schools and the General Staff.

The strategic-air-war doctrine gained considerable acceptance during World War II, but the overriding strategy was essentially geared to surface attack. When the air force gained its autonomy in 1947, the strategic air doctrine was adopted by the Air Staff, but was still resisted by the army and the navy. The limited conduct of the Korean War supported army and navy positions. The strategic air doctrine is not yet uniformly held in the armed services of the United States, even though it is substantially subscribed to by the Joint Chiefs of Staff as indicated in recent announcements and speeches.

If doctrine is well-established concept for waging war, what then is military policy?

Military chiefs ask the government to make certain laws which will bring doctrine, and plans based on that doctrine, into reality. Rarely are these requests fully adopted by any government because such laws are related to other facets of national life and may even conflict with domestic or foreign policy. After the military laws are passed, what results becomes government policy. But this does not end the process. Legislating a military establishment does not produce one. As Emory Upton so often said, authorizing troops does not put them in the field. Not until the levies are raised, trained, and formed into effective armed forces, or until the ships and planes are built and operational, can they be said to constitute the military establishment. At last, this establishment combined with certain plans and the will to execute those plans becomes the military posture.

Policy, of course, has several levels of authority. The first level in the United States is the executive policy. This policy may never reach fruition if it is rejected at the legislative level, as President Wilson's Treaty of Versailles was defeated by the Senate. Once adopted by Congress, policy has arrived at its second level of authority. It becomes the policy of the United States Government. Government policy may not always be fully consummated, as with Civil War draft legislation and Prohibition. But when it is enthusiastically adopted by the public at large, as after Pearl Harbor, policy truly becomes national and most probably will be carried through into action. This national acceptance is the third and final level of authority for military policy.

So the steps in the evolution of ideas for waging war go from concepts to doctrine and plans, then from executive policy to governmental policy to national policy. Finally, the last step is the existing military establishment that ensues, and the military posture, which will usually, in turn, force revision of some doctrine and plans to fit the facts of life.

Military doctrine, or the current philosophy for waging war, is just one of many influences on national policy, and until recently, a minor one. Cultural tenets, domestic problems, politics, economics, the budget, and the pressing demands of foreign affairs have formerly dominated the national policy of the United States, while military doctrine was largely ignored. This non-correlation of military doctrine with policy has led us into many unrealistic military postures and has caused us to wage wars for which we were unprepared.

Today this is changing. For the first time in our history, the fundamental facts of the military art are being soberly considered at the highest levels of government. Military doctrine is being given attention in the formulation of national military policy. With such enlightened guidance from our statesmen we are well justified in entertaining great hopes for a reasonable stability and an enduring nation.

Tribute should be paid here to the last author who addressed himself to this subject, Bvt. Maj. Gen. Emory Upton, United States Army, who spent two and one half years in research for writing *The Military Policy of the United States*.^{*} Illness and death at the age of forty-two cut short his brilliant work in 1881. Friends completed his manuscript, but it was not until Secretary of War Elihu Root had it published by the Government Printing Office in 1904 that this influential study became generally known.

Upton's *The Military Policy of the United States* was the guide for army reforms instituted by Elihu Root and supported by John McA. Schofield and Tasker H. Bliss. Need for such reforms had become glaringly apparent after the wasteful bungling of the Spanish-American War. Once reorganization was adopted from Upton's clear pattern, American success in World War I was assured.

At the laying of the cornerstone for the Army War College

^{*} Washington: U.S. Government Printing Office, 1904.

building in Washington in 1903, Elihu Root had this to say of Emory Upton:

After the close of the civil war he addressed himself to the task of interpreting the lessons of that war to his countrymen for the improvement of our military system. Of his own motion he devised a new system of tactics, which, being capable of adoption by a simple military order, was adopted, and revolutionized the tactics of the Army. On the recommendation of General Sherman he was sent around the world with two associate officers to study the armies of Europe and Asia, and upon his return he made a report which gave the results of all his accumulated experience and observation. He recommended the three-battalion formation in cavalry and infantry regiments. He recommended the interchangeable service in staff and line as against the permanent staff departments. He recommended examination as a condition to promotion. He recommended the establishment of a General Staff, and he recommended the general and systematic extension of military education.

His recommendations had behind them all the prestige of his brilliant military career. They had the advocacy and support of the great soldier who then commanded the American armies, General Sherman. They embodied the practical lessons of the civil war and the results of military science throughout the world. Yet his voice was as the voice of one crying in the wilderness. The Government did not even print his report, but with those of his associates it was filed in manuscript and forgotten among the millions of documents in the archives of the War Department.

By the time Upton's book was finally published, Elihu Root said this in the Preface:

... But the work exhibits the results of such thorough and discriminating research, such a valuable marshaling of the facts of our military history, and such sound and ably-reasoned conclusions drawn from those facts as to the defects

and needs of our military system, that it clearly ought to be made available for the study of our officers and for the information of all who may be charged with shaping our military policy in the future.

Many of the mistaken practices which General Upton points out have already been abandoned. We no longer feel obliged to have recourse to short enlistments to obtain enlisted men. The three-battalion system has been adopted. The interchangeability of the staff and line, in place of a permanent staff organization, has become a part of our system, substantially as General Upton recommended. The conflict between the civil authority, represented by the Secretary of War, and the military authority, represented by a commanding general, and the consequent interference by civilian secretaries in the command of troops, always inexpedient and usually disastrous, has been obviated by the General Staff act of 1903, which secures unity of professional military command, through the interposition of the Chief of Staff, with a body of military assistants, between the civil authorities and the military forces of the country. Compulsory retirements, examinations for promotion, the division of military information, the General Staff, and a general system of military education, all have been provided for since this work was written. Provision has been made by the militia act of 1903 for furnishing the discipline and training, upon which he is so insistent, to that part of the militia which is now known as the "organized militia," and for the training of many citizens in the knowledge and practice which will make them competent to serve as officers in the larger body of citizen soldiers, upon whom we must chiefly rely in time of war.

It is to be hoped that a study of the reasons given by General Upton for the policy which is embodied in all these measures will prevent our country from taking any backward step in any one of these directions.

Our military successes in this century have been in no small measure the final result of Emory Upton's great study. His factual references conclusively demonstrated the pressing need for

changes in military policy, and thanks to the wisdom of Elihu Root, these changes were largely accomplished.

In the following pages I attempt to review the doctrines and policies expressed by Upton and to carry on from where Upton left off, including the subsequent doctrines expressed by Dennis Hart Mahan, John McA. Schofield, William Mitchell, and other military thinkers at home and abroad. Only those doctrines and policies are considered, however, which bear on today's problems of national security.

It may well be that a note on Upton's original manuscript will be prophetic:

I doubt if you will convince the powers that be, but the facts stated, the references from authority, and the military conclusions are most valuable and should be printed and made accessible. The time may not be now, but will come, when these will be appreciated, and may bear fruit even in our day.

W. T. Sherman

Military doctrine is elusive and can only be pinned down momentarily. It is as dynamic as the technological culture from which it springs, changing with every new invention and each new system of procedure. Unfortunately, few scholars have considered the art and science of war to be an appropriate field of learning and hence there exists a paucity of authentic literature about a subject which has a most powerful influence over our lives and welfare. As Charles E. Merriam wrote, force is a prime element of government and the topic has been so neglected that "the material is ill organized, little analyzed, and wide open to fresh interpretation."* Those writers for the public who attempt to abstract military doctrine are usually either amateurs to the profession of arms or are bent on proving some

* *Systematic Politics*, Chicago: University of Chicago Press, 1945, pp. 159-160.

special point. It is time that we consider this subject soberly and objectively, for indeed we can say about military doctrine, "Only the truth can keep us free."

Again, let me caution that this does not represent any official Air University, United States Air Force, or Department of Defense position. This is the way it looks to me as a practitioner and student of military science.

2. General Washington's "Sentiments"

War, like most other things, is a science to be acquired and perfected by diligence, by perseverance, by time and by practice.

ALEXANDER HAMILTON, *The Federalist*

WITH each public statement of our national leaders, the new form of our military policy is presented in greater detail. The forthright speech delivered by John Foster Dulles, Secretary of State, before the Council on Foreign Relations in New York on January 12, 1954, gave the broad outline of a realistic and dynamic policy, the like of which this nation had not seen since George Washington submitted to the Continental Congress in 1783 his "Sentiments on a Peace Establishment." *

The new national defense policy launched by Secretary Dulles is not likely to gain wholehearted acceptance in any short period of time. Our historical experiences have left us with too many widespread misgivings and suspicions regarding all things military. Any proposed military change, however logical, must be tried again and again before the high court of public opinion.

* John McAuley Palmer, *Washington, Lincoln, Wilson—Three War Statesmen*, Garden City, N.Y.: Doubleday, Doran & Co., Inc., 1930, pp. 375-376.

General George C. Marshall has called the public need for reliable military knowledge our most serious military problem:

In our democracy where the government is truly an agent of the popular will, military policy is dependent on public opinion, and our organization for war will be good or bad as the public is well informed or poorly informed regarding the factors that bear on the subject. . . . Popular knowledge of history, I believe, is largely based on information derived from school textbooks, and unfortunately these sources often tell only a portion of the truth with regard to our war experiences. . . . Few Americans learn that we enrolled nearly four hundred thousand men in the Revolutionary War to defeat an enemy that numbered less than forty-five thousand, or that we employed half a million in 1812 against an opponent whose strength never exceeded sixteen thousand at any one place, and fewer still have learned why these overwhelming numbers were so ineffective.*

There are certain facts of war that our public has traditionally resisted, and for good and understandable reasons. Some of our deepest cultural tenets are born of escape from tyranny into freedom, and in our distant past tyranny was represented by men-at-arms. Walt Whitman dramatized this cultural heritage in "Thou Mother with Thy Equal Brood":

Earth's résumé entire floats on thy keel, O ship, is steadied
by thy spires. . . .
With all their ancient struggles, martyrs, heroes, epics,
wars, thou bear'st the other continents.

Hostility to military force was distilled in the belief that while armies are a necessary evil in time of war, in time of peace they

* General George C. Marshall, "Our Most Serious Military Problem," *Harper's Magazine*, November 1950, p. 27.

should not exist if free government is to survive. Our struggle for independence only served to confirm this belief.

The Newburgh Affair

At the end of the Revolution, most of the states were so poor that they conveniently forgot their obligations to the patriot soldiers, such as arrears in pay and promised bounties. As a result, a group of American officers met at Newburgh in December 1782 and formulated their just grievances in a petition which they sent to a powerless Continental Congress operating under the loose Articles of Confederation.

When the Newburgh grievances were not acted upon, there were audible rumblings, and a definite movement was started to force a military *coup d'état*. Major Paul Armstrong circulated anonymous papers of a seditious nature, including the "Newburgh Address." Colonel Lewis Nicola asked General Washington to accept a crown. Rumors of this dangerous activity no doubt reached Congress, and one can imagine the consternation created among the delegates.

The Continental Congress had already been exposed to threats of this sort several times during the war. The abominable fiscal and logistic arrangements of the Revolutionary War had forced troops to fight without adequate pay, food, or clothing. In 1781 the Pennsylvania Line mutinied and, after killing several of its officers, marched on the Capitol at Philadelphia. A committee from Congress, promising to meet every demand, halted the mutineers short of their objective. A similar movement by New Jersey troops was suppressed by their officers. It is little wonder that "members of Congress continued to conjure up visions of military despotism when the greatest need was to prevent the Continental Army from melting away." *

* John C. Miller, *Origins of the American Revolution*, Boston: Little, Brown & Co., 1943, p. 119.

The corps of loyal Continental Army officers had performed prodigious feats of leadership in keeping discontented soldiers in line during the seven long years of military hardship. But when those officers themselves began to waver at Newburgh, urging General Washington to seize control of the government, the threat to civil authority and republican ideals became agonizingly acute.

Reading between the lines of historic records, one can see how broad were the repercussions of the Newburgh affair. Two years afterward, Noah Webster expressed the fear that former soldiers and officers would rally and "give a government to this country by force." * Washington, of course, refused the offer of a crown at Newburgh, administering a severe rebuke to Colonel Nicola; he likewise discredited the subversive activities of Major Armstrong. Under firm guidance from the Commander in Chief, the assembled officers prepared a contrite resolution:

Resolved unanimously, That His Excellency the Commander in Chief be requested to write to His Excellency the President of Congress earnestly entreating the more speedy decision of that honorable body upon the subjects of our late address, which was forwarded by a committee of the Army, some of whom are waiting upon Congress for the result. In the alternative of peace or war this event would be highly satisfactory, and would produce immediate tranquillity in the minds of the Army, and prevent any further machinations of designing men to sow discord between the civil and military forces of the United States.

Resolved unanimously, That the officers of the American Army view with abhorrence, and reject with disdain, the infamous propositions contained in a later anonymous address to the officers of the Army, and resent with indignation the secret attempts of some unknown persons to collect the

* Alfred Vagts, *A History of Militarism*, New York: W. W. Norton & Co., 1937, p. 106.

officers together in a manner totally subversive of all discipline and good order.*

This officially ended the Newburgh affair, but lasting suspicion had been sown in the public mind. The army could not be trusted. Vague fears of our ancient past were stirred: armies threatened freedom. Shortly after this, Congress solemnly decided that "standing armies in time of peace are inconsistent with the principles of republican government, dangerous to the liberties of a free people, and generally converted into destructive engines for establishing despotism."†

Washington's Plan

The Newburgh meetings ended in March of 1783, and in April, Washington proclaimed the cessation of hostilities. In May he submitted to Congress a thoroughly feasible and practical plan for a national military policy, his studious "Sentiments on a Peace Establishment." This was a product of the doctrine distilled in the Revolutionary War, a policy recommended by the several patriot generals who had carried the heavy load of responsibility in winning our independence, and tempered by Washington's own great wisdom.

But before Congress could give this plan any serious consideration, the delegates suffered another frightening experience. In June of that same fateful year of 1783, about eighty raw recruits mutinied at Lancaster. Again, wild and rebellious soldiers headed for Philadelphia, where they were joined by some two hundred more quartered in the city. They surrounded the state-house where Congress was in session and placed sentinels with

* Jared Sparks, *The Life of George Washington*, Boston: Tappan & Dennett, 1839, Vol. 8, pp. 564-565, in Upton, *Military Policy*, p. 63.

† Journals of the Continental Congress, June 2, 1784, in Oliver Lyman Spaulding, *The United States Army in War and Peace*, New York: G. P. Putnam's Sons, 1937, p. 116.

fixed bayonets at the doors. They then demanded a redress of their grievances in twenty minutes. Fortunately the delegates managed to escape without bloodshed.* To the members of the Continental Congress this latest armed threat was proof positive that any peacetime military establishment was inimical to the republic.

In his "Sentiments on a Peace Establishment," submitted earlier that year to a committee of Congress, Washington had recommended: † "First, a regular and standing force"; second, a well-organized militia, "upon a plan which will pervade all states and introduce similarity in their establishments, maneuvers, exercises and arms"; third, arsenals and stores; and fourth, "academies for the instruction of the military art." These were the barest military essentials for an unstable new nation of seven million souls with far-flung frontiers. Yet so grievously had the Continental Congress suffered at the hands of armies, even their own, that any systematic military policy was anathema to it. Now that Britain had backed down, Congress was ready to solve the military problem once and for all by leaving it almost entirely to the separate states.

Washington's "Sentiments on a Peace Establishment" represented an official statement of a feasible policy that took into consideration all important factors: the sentiments of the American people, the nature of the colonial governments, the poverty and disorganization following the war, geography, communications, and the international situation at the time. It was the well-considered policy of an extraordinary statesman who had an intimate knowledge of the art of war. The military policy announced by Secretary of States Dulles early in 1954 had matured from the same sort of fertile experience in the National Security Council and its member agencies.

* Upton, *Military Policy*, p. 64.

† Palmer, *Washington, Lincoln, Wilson*, p. 375.

In an exhaustive review of Washington's correspondence, Emory Upton abstracted what might be termed the military doctrine of the Revolutionary period, the strong military beliefs which lay beneath Washington's official report.* In essence these were:

First: War cannot be waged successfully by amateurs. Courage and patriotism are not enough. Success in war depends upon the knowledge and skill acquired by long service and experience in all ranks.

Second: Unity of command is essential for military establishments if war is to be waged successfully.

It can be readily seen that both of these doctrines — professionalism and unity of command — were in opposition to the then American way of life with its rugged individualism and its distaste for authority of any sort. The fiction had been accepted that Revolutionary battles were won primarily by the minutemen, but history shows these well-meaning citizens often fled from the battle line as speedily as they had sprung to arms.† Whereas the Continentals, who had signed up for the duration, patiently learned the skills of warfare, and it was they who provided the hard nucleus of resistance.

The peace treaty was formally ratified in September 1783, and Washington tendered his farewell address to his Continentals. That same year the army, except for one regiment of infantry and two battalions of artillery, was disbanded. During the following year the army was further reduced to a mere seventy men for guarding the stores at West Point, with no officer in service above the rank of captain. The Continental Congress had thoroughly eliminated the menace of men-at-arms.

The question of military policy had been resolved by ignoring

* Upton, *Military Policy*, pp. 66-67.

† Upton, *Military Policy*, *passim*.

if. There is no record that Washington's "Sentiments on a Peace Establishment" were ever considered.

Toward National Unity

Thus our ship of state set sail in 1783 after its construction on the ways of war. There was almost no plan for encountering the inevitable storms of international life. The presumed peril of protection against such storms loomed more ominously than the storms themselves. A strong, unified crew might mutiny. This was avoided by relying on a weak and divided crew until the storm should hit; then it was felt that amateurs could rapidly be recruited to help weather the blast.

This policy was not altogether naïve. The peculiar geographic location of our new country, coupled with the physical limitations of existing transportation, promised success to a policy of unarmed isolation. Washington had realized this when he had proposed a very modest peace establishment. We were blessed, moreover, with such good fortune that the evidence of divine Providence appeared repeatedly at hand. The best that can be said of this early policy is that it worked. Our country survived and prospered. And during this period our republic developed sound systems of government, supported by lasting democratic customs and principles. There was never an internal threat from our token standing army, and our fortunate situation in time and place permitted military forces to be raised and trained after wars broke out. A guardian angel seemed to hover over the infant republic.

Internal disorder, however, threatened the new nation from the outset. The Continental Congress was even less able to carry on in peace than it had in war. States were reluctant to honor the benefits of discharged soldiers which had been authorized

by Congressional certificates. Without funds or the means to raise them, the feeble Congress had no way to enforce treaties or to stabilize the currency. Inflation skyrocketed with the uncontrolled output of paper money by state printing presses. Poverty and hopeless debt were among the inevitable consequences. Robert Morris, financier of the Revolution, resigned in 1783 rather than be "the minister of injustice." Civil disorder flared in several sections of the country.

Tennessee settlers were in insurrection against the authority of North Carolina; Kentucky, dominated by the adventurer James Wilkinson, was in revolt against Virginia; and in western Massachusetts blood was about to be spilled by an organized uprising under Daniel Shays. Congress had to invent an Indian war to persuade troops to quell "Shays's Rebellion," but before the federal troops arrived on the scene, Massachusetts militia managed to disperse Shays and his two thousand disgruntled farmers.

Since both Shays and Wilkinson had been officers in the Continental Army, these uprisings supported the widespread prejudice against a national army because they testified to the unreliability of the Continentals, already in some ill repute after the Newburgh incident. Yet Congress was caught in a dilemma, for clearly the use of a national force seemed to be the final means in putting down such uprisings.

In 1784 Congress broke up in disgust, and the French minister reported to his government, "There is now in America no general government — neither Congress, nor president, nor head of any one administrative department." * The outlook was grimly uncertain. But skilled statesmen managed to find solutions. Thomas Paine had urged in *Common Sense*, "Let a continental conference be held . . . to frame a continental charter." † It took

* *Encyclopedia Britannica*, 1947, Vol. 22, p. 790.

† *Encyclopedia Britannica*, 1947, Vol. 22, p. 790.

three years more of discussions, meetings, and national confusion before the great leaders got to work. Then Washington, Hamilton, Madison, Franklin, Pinckney, McHenry, Morris, and the rest of the founding fathers sat down at Philadelphia in 1787.

Throughout the Revolution, Washington had complained sternly about the absence of unity of command both in the government and in the army. Except for the Continentals, the militia supplied by the colonial states paid allegiance to the laws and edicts of those several states, not to the Continental Congress, and often not to Washington himself. He once wrote that the Yankee regarded his officers as "no more than broomsticks." * Enlistments were of such short terms, even for the Continentals, that soldiers returned home at their own convenience, and sometimes on the eve of crucial engagements, such as Long Island, White Plains, and Germantown. Instead of one army, there were fourteen — the Continentals and thirteen more or less allied armies. A distrust of Congress by the states and the jealousy between states created an intolerable environment for waging war. Congressional pleas to the states for support of the war were often disregarded.

We could not possibly have gained our independence under these grave handicaps of disunity had not Providence given us Washington, one of the greatest leaders of his age, and at the same time set against him several champion military bunglers: Burgoyne, Howe, Clinton, and Cornwallis. Had Wolfe or Wellington opposed him, it is doubtful that Washington could have overcome the disunity of command which shackled his every move. When he arrived in Philadelphia for the Constitutional Convention, wearing his ceremonial sword, there can be no question that Washington was dead set on creating a strong central government which could protect itself and not have to

* Henry Steele Commager and Allan Nevins, *America: The Story of a Free People*, Boston: Little, Brown & Co., 1942, p. 95.

rely so heavily on Providence to assure its survival. He would consummate the toast of his officers: "Here's to a hoop for the barrel." * The staves had to be held together by a ring of iron.

The attitude Washington held toward disunity is clear in a letter he sent to a relative:

Supineness and indifference to the distresses and cries of a sister, when danger is far off, and a general but momentary resort to arms, when it comes to our doors, are equally impolitic and dangerous, and prove the necessity of a controlling power in Congress to regulate and direct all matters of general concern. The great business of war can never be well conducted, if it can be conducted at all, while the powers of Congress are only recommendatory.†

He had also protested against the antimilitary philosophy which prevailed. In other countries this prejudice against standing armies exists only in times of peace, but it was our policy to be prejudiced against standing armies even in time of war.

Provisions of the Constitution

Washington presided at the Convention but did not enter into the discussions. Still, a governmental philosophy and framework adequate to carry out his "Sentiments on a Peace Establishment" appeared in the Constitution. This attests to his great cloakroom influence. At one point, however, this philosophy was threatened. A member of the Convention (Gerry of Massachusetts), less wise than Washington in the ways of statecraft, proposed a clause in the Constitution which would limit the standing army to five thousand men. Washington calmly observed that he would pose no objection if the clause were amended to prohibit an enemy

* Commager and Nevins, *History of the United States*, p. 116.

† Louis Smith, *American Democracy and Military Power*, Chicago: University of Chicago Press, 1951, p. 19.

from invading the United States with more than three thousand. The proposal was dropped.*

Although Washington succeeded in having the Constitution contain provisions for adequate national defense, he was helpless in trying to alter the ingrown bias against military establishments. Although Congress was empowered "to raise and support armies," no reference was made to a regular army. Regarding a navy, however, the wording was more positive: "To provide and maintain a navy." During ratification, at least ten states debated even these mild military features, and five of the states proposed amendments designed to lessen the shadowy possibilities of military despotism.†

In the words of Daniel Webster, the ship of state had been rebuilt with an oak bottom and copper sheathes, as seaworthy a craft as man could construct. The framework was sound, but the will to sail her was hesitant. When the first Secretary of War, General Henry Knox, suggested that a standing army was desirable for internal control, no remark could have frightened Congress more, and military legislation was defeated at every turn. As Leonard White puts it:

Our forefathers distrusted executive power and were particularly sensitive about military force, a ready instrument to turn against the people in favor of monarchy. Hence arose a fear of standing armies and an extraordinary confidence in the militia which for decades withstood all the evidence of its incompetence.‡

Early lawmakers stubbornly refused to consider the problems of navigating through international storms.

* William Walton, *The Army and Navy of the United States*, Philadelphia, Pa.: George Barrie & Sons, 1900, p. 5.

† Smith, *American Democracy*, p. 27.

‡ Leonard D. White, in Preface to Smith, *American Democracy*, p. xi.

Washington's bitter experience had taught him the absolute necessity for unity of command when a nation is undergoing the supreme test of war. Although provided for in the Constitution, this doctrine has not always been reflected in our military establishment and has never been followed at the outset of hostilities. Even the attack at Pearl Harbor resulted in an investigation to determine who was responsible for the defense of Hawaii. Military catastrophes usually force us to adopt unity of command before a war is concluded, but in the future this luxury of time may not be with us. In *Crusade in Europe*, Eisenhower firmly endorsed this doctrine:

... statesmen, generals, admirals and air marshals — even populations — must develop confidence in the concept of single command and in the organization and the leader by which the single command is exercised. No binding regulation, law, or custom can apply to all its parts — only a highly developed sense of mutual confidence can solve the problem.*

The Militia Act of 1792

A few sharp blows were soon experienced, and the temporary damage was enough to cause some questioning of the policy of being unarmed and disunited. With the depletion of both American and British outposts, the Indians increased their hostility. Colonel Josiah Harmar was ordered out to what is now Fort Wayne with one thousand raw state troops and was beaten with a loss of two hundred. General St. Clair, with about fifteen hundred equally untrained soldiers, suffered even a worse defeat about a hundred miles north of what is now Cincinnati. He lost nine hundred. These disasters led to the Militia Act of 1792, which charged each state with the responsibility of training all

* Dwight D. Eisenhower, *Crusade in Europe*, Garden City, N. Y.: Doubleday & Co., 1948, p. 30.

able-bodied young men, and also established a small regular army temporarily called the Legion. This was Secretary Knox's legislative program, but it had been so watered down by repeated compromise as to be a farce. The Militia Act was to remain on the statute books for over a century, long after even its language became archaic, directing as it did that each "able-bodied, white male citizen . . . provide himself with a good musket or firelock."

General Anthony Wayne was assigned to organize the Legion and to avenge our defeats in the West. A professional, he carefully trained the new levies, which were now required to remain with the colors for more than a few weeks. The following year he moved to attack with three thousand five hundred men, and found the Indians camped next to a garrisoned British fort near what is now Toledo. Wayne skillfully defeated the Indians without exciting British conflict, and by losing only thirty-three killed. The advantages of experienced leadership and well-drilled troops were again demonstrated to a doubting populace who believed that only martial spirit was necessary for military victory. At least the army was becoming regarded as an unfortunate necessity, even in time of "peace."

Early Entanglements

In 1793 war began in Europe between France and Britain, and even though Washington proclaimed neutrality, we could not avoid involvement. Sympathy was at first divided, but anti-British feeling gained predominance, until Jay's Treaty with England, backed by Washington's steady prudence, temporarily stilled the war clamor. When John Adams, the New Englander, replaced Washington, sentiment switched to anti-French. By 1798 a shooting war had broken out at sea.

The crisis of the moment led to the establishment of a Navy

Department, and six ships were built to attack French shipping. The glorious little Continental Navy in which John Paul Jones fought the *Bon Homme Richard* had been disbanded along with the Continental Army after the peace of 1783. But a naval spirit and tradition had been created by the Continental Navy which carried on in the new navy. Even when hopelessly outnumbered, our ships departed themselves with valor, as when the French frigate *Vengeance* was put to flight by the *Constellation*.

When the founding fathers drafted the Constitution, they had in mind a War Department. It was their purpose, as Hamilton indicated, to include all military establishments, the navy as well, under this single unified department. But Congress was fearful of Knox and, not being aware of the obscure military doctrine of unity, later established another department for the navy. This military disunity had no great consequence until warfare took to the air and the dividing line between land and sea was erased. In 1947 the concepts of Hamilton and Washington were restored with the creation of the Department of Defense. Thus, after one hundred and sixty years, government policy, as represented by law, re-established unity, and the circle was closed on this aspect of General Washington's doctrine.

Even so, military unity of command has not yet become national policy in the fullest sense because many dissident elements still struggle for autonomy and independence. But the evidence is all in. The doctrine is sound and it will be accepted as more people become educated in military art and science.

Underpinning the doctrine of unity of command is the military necessity for priority objectives, or unity of purpose. If national objectives are not clear, then the several elements of the military establishment will assume what the objectives should be and will design their own strategies to achieve them. It follows that when separate military establishments believe themselves to have unique missions, unity of command is difficult to

justify. But when government clearly enunciates objectives and broad strategies for meeting those objectives, as Secretary Dulles did in his January 1954 speech, then unity of purpose is assured and true unity of command becomes possible.

Troops were raised for a war with France in 1798. In those times public emotion determined national strategy without regard to the forces available for action. Before land fighting occurred, Napoleon came to power in France. He saw no real purpose in warring with distant America, preoccupied as he was in Europe, and so he negotiated for peace. Thus an event of pure chance kept us from waging a wasteful war against the ally which had been largely responsible for our independence. Moreover, this former ally was soon to become the most powerful military force of the century, and a full-fledged war with such a power could have resulted in disaster.

When Jefferson took office in 1801, he was confident that war could be avoided merely by ignoring it. "The tough sides of our Argosie have been thoroughly tried," he wrote. "We shall put her on her republican tack, and she will now show by the beauty of her motion the skill of her builders." *

But Jefferson's great wisdom did not include an understanding of the military art, which has not been uncommon in our national leaders. Moreover, Jefferson nursed a strong resentment for men-at-arms as represented by the redcoats. In the Declaration of Independence he had spoken angrily of the British Government, "For protecting them [the British soldiers], by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States." He seemed to look upon all military power with equal displeasure. Nevertheless, Jefferson was compelled to wage war. The Barbary States of North Africa exacted duties on our shipping which we refused to pay. Tripoli declared war on us, and Jefferson had no recourse

* Commager and Nevins, p. 155.

but to fight or surrender to exorbitant demands. Fortunately, the brilliant little professional navy created a few years earlier for the war with France, sparked by such officers as Stephen Decatur, quickly crushed the power of the Barbary States.

The war between England and France raged on, and our trade prospered. Needing sailors, we readily recruited British deserters and again crossed swords with England when she exercised her "right of search." Nelson's victory at Trafalgar had gained control of the seas for Britain and she insisted that we not trade with France. Of course we ignored such colonial treatment, and as a result our flag was repeatedly insulted. The United States frigate *Chesapeake*, for example, was fired upon off our own shores, just beyond Cape Henry, by *HMS Leopard*, and forced to submit. This was in 1807, still in Jefferson's administration. He could not dispose of war by shutting his eyes to it.

Jefferson's response was one of complete isolation. The Union would trade with neither Britain nor France. The Embargo Act left our ships rotting in their harbors, economic ruin facing the country. Secession was considered in New England, where the suffering was most acute. The Embargo Act was eventually repealed as a failure only a few days before Jefferson left the White House.

A wholly economic solution to a war threat had proved unsuccessful, and our proud ship of state was tacking into darkening clouds. "The tough sides of our Argosie" were to be tried again, and its motion under inept handling was to be something less than beautiful.

The War of 1812

Events rushed upon James Madison with the suddenness of a line squall. New England was still talking secession and hatred of Britain was running high. With dangers rising in the East,

we were assailed in the West by a great Indian confederacy headed by Tecumseh. By 1810, from the Great Lakes to Alabama, a shooting war, which the British were accused of fomenting, was an actuality. Fiery young men in Congress, ignorant of war, demanded it. Henry Clay boasted that he would "negotiate the terms of peace at Quebec or Halifax." Thus in June 1812 we plunged headlong into our most humiliating war: a war from which we were again saved only by providential events overseas beyond our control.

Although our army always outnumbered enemy forces, almost every land battle of the War of 1812 was either a defeat or an abortion. No real progress had been made toward adopting Washington's doctrine of a small but good regular army backed by a well-organized militia under federal direction. Military policy was far removed from military doctrine. Our regular force consisted of small detached garrisons spread far and wide, officered by old retainers and manned by the lowest classes in our society, the "offscourings of jails and pothouses." * Any semblance to a standing army was coincidental. It was instead a disreputable constabulary which had been allowed to sink to degradation by an unrealistic military policy.

In the words of Upton, "Military legislation had to take the place of military action." † Congress thus authorized an increase of the regular army to thirty-five thousand men. Even so, volunteers were slow to join up, for the Militia Act of 1792 had no teeth in it.

Had there been more students of war and statecraft in the country, we might have seen the wisdom of conducting a purely naval campaign. For only at sea were we to have any marked success. But such a policy was impossible for a people filled with visions of ground strategy drawn from the long Revolu-

* Commager and Nevins, p. 166.

† Upton, *Military Policy*, p. 95.

tionary conflict. The concept of naval war which had been developed so highly by the mother country must have been overlooked. As is the case today, scholars conceived of war in the classical traditions of Caesar rather than Themistocles: a land campaign of conquest rather than organized attrition of the enemy's commerce. Wide knowledge of Biblical land wars cemented this narrow view. There was no organized study of the art of war.

Invasion of Canada became the battle cry. Even Jefferson took it up. He wrote: "The acquisition of Canada this year as far as the neighborhood of Quebec will be a mere matter of marching, and will give us experience for the attack on Halifax the next, and the final expulsion of England from the American continent." * How different had been his tone in 1801! Perhaps the fortunate Louisiana Purchase had made him heady for conquest. In any event, to Jefferson war had become a real instrument of national policy, even if his knowledge of its conduct was still deficient. Nor were his contemporaries any more qualified. Henry Clay boasted that the Kentucky militia alone could take Canada.

Such was the martial spirit as our ship tacked purposely into storm clouds. Hardly an officer aboard had a rudimentary knowledge of the military art. But again fortune favored us. England was hard pressed in Europe by Napoleon, and the few troops in Canada had no idea of invasion.

Columns were sent north to Canada by several routes, ordered almost at random by various individuals of government without a comprehensive strategic plan and with a complete disregard of command channels. Military leadership was in the hands of incompetents and the tragedy of war was being played as a child's game. No unity of command existed in the United States forces below the Secretary of War, none other than the infamous

* Spaulding, *The United States Army*, p. 128.

John Armstrong, who, as a major in the Continental Army, had circulated the Newburgh Address. His rise to major general had resulted from political machinations in early stages of this new war, and his conduct as Secretary of War after January 1813 left much to be desired.

The first column to move was in the West. Governor William Hull of Michigan, a senile Revolutionary War officer, was urged against his better judgment to take command. With a body of semimutinous volunteers he marched through the wilderness from Dayton to Detroit, and crossed the river unopposed. But Hull grew less and less confident of his troops (some of them had refused to cross the river, insisting they were in service only to repel invasion), and he retreated to Detroit. His demoralization reached its nadir when he surrendered to a smaller force without firing a shot.

Hull was made the scapegoat for this disgrace, but events suggested he was not entirely to blame. During Hull's campaign a similar body of volunteers had started from Fort Harrison to Terre Haute for the purpose of avenging a massacre at Fort Dearborn (Chicago). En route, this force totally disintegrated, the troops straggling back individually to their homes.

General William Henry Harrison, who had trounced the Indians at Tippecanoe two years earlier, relieved Hull and was ordered to take Detroit. He dispatched another disorganized column of recruits, which was totally destroyed at Frenchtown, just south of its objective. Two hundred Americans were killed, and seven hundred captured, of whom two hundred were later massacred by the Indians.

The minuteman philosophy was being proved perilous, but the nation was dangerously slow in learning this lesson. Moreover, the concept of a citizen's responsibility to his country seemed sadly missing. As a consequence of such disgraces to our arms, it is surprising that our military policy was not cor-

rected immediately. Yet one hundred and thirty-six years later, General Eisenhower was to write:

It seemed to me that constant stressing of the individual rights and privileges of American citizenship had overshadowed the equally important truth that such individualism can be sustained only so long as the citizen accepts his full responsibility for the welfare of the nation that protects him in the exercise of these rights.*

The strange belief that no military education is needed by the man in command of troops was also tested in this second war with Britain. General Stephen Van Rensselaer, "the last of the patroons," who had been made a general by virtue of his political influence, was poised to attack near Niagara but doubted the support he might get from his rival, General Alexander Smyth, who commanded at Buffalo. Could Smyth be depended upon to furnish reserves and supplies? Even so, Van Rensselaer ordered a river-crossing to Queenstown Heights. Some units responded gallantly while others refused on Constitutional grounds to invade. Those troops who had crossed were, in the words of one survivor, "slaughtered like venison," while their comrades watched from across the river.

Van Rensselaer resigned in disgust and Smyth took over. Smyth's bombastic proclamations had recruited many volunteers, but their poor fighting ability was matched only by Smyth's inept generalship. One abortive preparation after another to cross the river left the troops in a state of complete insubordination. Finally Smyth, "hissed and hunted from one hiding place to another," had to flee for his life.

On the route from Lake Champlain to Montreal, General Henry Dearborn made a timid advance with what was to have

* Eisenhower, *Crusade in Europe*, p. 60.

been the main effort of five thousand men, and although relatively unopposed, he stalled. Dearborn had left medical practice to serve in the Revolution, and then had graduated into politics. Although not an amateur, his knowledge of war was limited. The only fire fight which occurred on his advance to Canada was when two of his own detachments mistook each other for the enemy. Generalship was nowhere to be found in our forces bent on land conquest. Dearborn went the way of Van Rensselaer and Smyth.

At sea, however, there were a few professionals. Captain Oliver Hazard Perry's naval victory on Lake Erie wrested a tenuous control of that lake to our squadrons. General Harrison's western army could now cross the lake, reoccupy Detroit, and restore American control of Michigan. The British had fallen back to Lake St. Clair and the Thames River. Harrison attacked at Chatham, and with a force nearly double the size of the Canadian and Indian allies the United States won its first victory. Tecumseh was killed, the Indians dispersed, and the rest captured. This diversion, far from Montreal, had minor strategic significance and was utterly wasteful to the main purpose. General Harrison probably realized this because he immediately retired from the war.

There was one professional officer in this war, however, who gained no laurels whatsoever. Far worse than incompetent, his loyalty was suspect, it having now been established that he was an accomplice of Aaron Burr. He was General James Wilkinson, who had fought well under Arnold and Gates in the Revolution, but who had little regard for the Union. After the war he took an oath of allegiance to Spain and began to intrigue with his fellow Kentuckians to detach the western settlements and bring them into Spain's orbit, which then included Louisiana. For this work he received a substantial pension from Spain, being known as "Number Thirteen." But his behavior was entirely selfish, for

he also worked against Spain, and even against his accomplice, Aaron Burr, in a later adventure. He arrested Burr, but was subjected himself to a series of trials and courts-martial in which he was acquitted for lack of evidence, and was returned to command. At the outbreak of the War of 1812 Wilkinson was a senior general in the United States Army. No evidence is so vivid as this to show the lack of respect for the army held by civilian authorities at this time.

The main American advance down the St. Lawrence to Montreal in 1813 was to be led by Wilkinson. With eight thousand at Sackets Harbor he was to proceed down the river and join forces with five thousand under General Wade Hampton coming north from Lake Champlain. Wilkinson and Hampton were hardly speaking to each other, and so Secretary of War Armstrong came north to seek some sort of unity. Here indeed was the blind leading the blind, with national loyalty in the balance. Hampton advanced hesitatingly and upon meeting resistance returned to Lake Champlain. Wilkinson was equally cautious. He moved by water, but a small hostile flotilla harassed his rear. An action fought at Chrysler's Field forced the Americans back to their boats in retreat. So ended the ignoble campaigns of the first two years of war. They stand as monuments to military stupidity and disunity. Even so, they were tragic patterns for the beginnings of subsequent wars.

Wilkinson, the soldier of fortune, is the one dark splotch on the regular army. But it must be observed that his accomplice, Burr, was a notable New York citizen, not a military man. The identification of the man on horseback with the man in uniform is usually based on imaginary and unfounded conceptions, particularly in modern life. Stalin, Mussolini, and Hitler might suggest that it is the politician to fear. And depriving military leaders of an adequate military policy to pursue on the grounds that they may become dictators is just as senseless as would be

the degradation of senators or civilian executives because they are politicians.

The actions at sea began more auspiciously than did the invasion of Canada. Commodore John Rodgers put to sea at once to protect our commerce and to prey upon British shipping. He chased the British frigate *Belvidera* into Halifax and swept the North Atlantic. Then Commodore Isaac Hull sailed from the Chesapeake, and after being chased into Boston by a hostile squadron, put to sea again within a few days to capture H.M.S. *Guerrrière*. Later, Rodgers, Decatur, and Bainbridge sailed from Boston in the *President*, the *United States*, and the *Constitution* and again swept the Atlantic, capturing the British frigates *Macedonian* and *Java*.

Although these victories were hailed by the nation, they held minor military significance. Jefferson's myopic military policy had given us but twelve warships of any size. It was no more than a small raiding force. The lesson of Salamis, where tiny Athens humbled the Persian Empire with sea power, had obviously not been adequately studied. The overwhelming naval might of Great Britain soon threw a tight blockade on our coast south of New England. Clandestine trade, beneficial to British forces in Spain and Canada, was all that kept the New England coast relatively open.

When Napoleon fell in 1814, Britain turned her attentions to America and built up her forces here. A feeble initiative was still held by the United States on the Canadian frontier, however, and military knowledge was growing through costly experience. Congress, too, had learned from two years of war. Terms of enlistment were increased from one to five years, and the over-all strength was rising to near forty thousand.

Intelligent young officers such as Jacob Brown and Winfield Scott were studying war, gaining more authority, and creating order out of chaos. Working hard, Brown and Scott developed

systems of instruction, regulations, and drill manuals. Military ignorance in the service had been abysmal. No authorized manuals existed, so they borrowed a French textbook from which they taught tactics ten hours a day for three months during the winter of 1813-1814.

Awkward General Wilkinson made the first move of 1814 from Lake Champlain, but it was the same old story: repulse after meeting minor resistance. On the Niagara, however, General Brown, with Scott in the leading brigade, attacked the concentrated British forces at Lundy's Lane, almost opposite the Falls. It was a fierce engagement and the enemy position was taken, but a counterattack after nightfall drove back the Americans, ending the battle in a draw. Each side lost about eight hundred. Both Brown and Scott were wounded, as were Generals Riall and Drummond on the British side. Until the end of the war this campaign seesawed bitterly back and forth between Lake Erie and Chippewa, never being resolved. But at least here we had learned to fight as a team.

With most of our forces near Niagara on what appeared to be a diversion, a seasoned British column advanced down the shores of Lake Champlain with the support of a naval squadron. Again sea power decided the issue. The British squadron was soundly defeated by Commander Thomas Macdonough of the United States Navy, a twenty-eight-year-old professional. Its communications thus threatened, the British column retreated without fire from the Americans. That was the last activity in the north. The boasts of Jefferson and Clay were sacrificed on the altar of general military disunity and ignorance. Jefferson's remark that "no nation is permitted to live in ignorance with impunity" had been prophetic. Few yet realized that war was a subject for deep study.

Superior naval forces on the Great Lakes and Lake Cham-

plain could have protected our northern boundary simply by denying communications to the Canadians. Large armies in the rugged country of those times had to have waterways upon which to move. Yet our military ignorance had led us to embark on costly and futile land conquest.

We declared war in order to gain respect for our flag at sea. The attack on Canada was hardly likely to achieve this. And if our real purpose had been the conquest of Canada, perhaps this also could have been achieved through action at sea by harassing British shipping until Britain would have been glad to give us Canada. As it was, she lost one thousand seven hundred ships to our navy and privateers during the war. This was a deep thorn in her side. It could have been driven in more deeply if our resources had been devoted to sea power instead of land conquest.

It was during the fateful month of July, 1814, while Macdonough was demonstrating the potency of sea power on Lake Champlain, that a British squadron under Admiral Sir George Cockburn ascended the Patuxent River to provide us with a less pleasant lesson in sea power. Cockburn had blockaded the Chesapeake for many months, raiding Havre de Grace and Hampton Roads. Joined by a force of English troops under General Robert Ross, Cockburn was now ready to attack the seat of the United States Government. Disembarking at Benedict on the Patuxent, Ross marched to Bladensburg, just north of Washington.

Facing Ross was a rabble army under General William H. Winder, another military amateur who had been promoted by other than professional considerations. The catastrophe developed so swiftly that even the President and the Secretaries of State, Treasury, and War got into the military chain of command. Disorganization was rampant, and when Ross attacked,

the opposition melted away. With over six thousand engaged against half as many British regulars, the Americans had but thirty-six casualties. The army defending Washington was largely composed of part-time militia who had not had the stiffening experiences of our troops on the borders.

After burning the public buildings, Cockburn took the troops aboard and sailed for Baltimore. His fleet was held up by the guns at Fort McHenry, and in the land operation General Ross was killed. From this repulse the British fleet set sail for the Gulf and a new plan of campaign to wrest New Orleans from the United States.

At this point the British virtually had the war won. The United States was ready to expire. True, we had hampered British commerce, but she in turn had ruined ours. Our major hope was the fact that the war was costing Britain dearly and that she was exhausted from the recent Napoleonic conflagration. We humbly sent emissaries to Ghent, one of whom was Henry Clay himself, in search of some reasonable settlement. With so few bargaining points on our side, the negotiators must have been surprised that Britain was willing to allow us to retain our independence. It was a strange paradox that a professional British soldier, General Wellington, threw his great weight to our side and gave us peace with independence.

Fifteen days after the treaty of peace was signed, Wellington's brother-in-law and former chief of staff, General Pakenham, was killed by Jackson's forces defending New Orleans, which incidentally was our only major victory. Would Wellington have been so kindly disposed toward us *after* this? If the negotiations had been held up at Ghent until *after* the Battle of New Orleans had become known, Britain might have carried on the war to our complete destruction. Indeed, Providence was still looking out for us.

Need for Unity and Professional Force

With all its disappointments and failures, the War of 1812 strengthened the country and opened our eyes to the true nature of national life. Sails tattered, the ship of state rode out into calm seas with a much wiser and more unified crew. Most people were disgusted with the elements which had sown discord and sabotaged the war effort. Despite Wilkinson and Armstrong, national loyalty had become a virtue. Our principle heritage from Washington had been a strong hull, a "hoop for the barrel," and a system for achieving unity of command. Unfortunately, he had not been successful in translating his other military doctrine into national policy. But now people were beginning to see that more than a strong hull was needed to assure safe passage.

The philosopher Adam Smith had written years before that "it is only by means of a standing army . . . that the civilization of any country can be perpetuated." The near defeat in 1814 had brought this truth home to America. An understanding of the doctrine of professionalism in arms was dawning. The need for leaders educated in the art and science of war had been thrust home so sharply that a regular standing force was now recognized as an absolute necessity, however undesirable.

Beneath the recommendation for a professional force, and implied by Washington's repeated recommendations for academies to instruct in the military art, was the doctrine that war is indeed a complicated subject, requiring genuine life-long study for mastery. This educational requirement had been well expressed by Hamilton: "The steady operations of war against a regular and disciplined army can only be successfully conducted by a force of the same kind." * In short, we cannot ex-

* *The Federalist*, No. 25, p. 157.

pect military success by full reliance on occasional soldiers. The life of a nation is too dear to trust to amateurs at the moment of greatest crisis. This lesson, too, was being learned. The pitifully small military school created at West Point in 1802 with ten cadets, and promptly forgotten, was now looked on with some favor. Washington had considered such an institution of learning to be "of primary importance to this country." Yet he never lived to see it established. After the second war with Britain the attendance was increased to respectable proportions, and Sylvanus Thayer was introducing a thorough system of instruction that is still a model in American education.

The need for reliable military literature as a step in any program of education had been demonstrated by Brown and Scott with their borrowed French manuals. These officers were ordered to Washington to write regulations and manuals for the conduct of American armies.

But the "Sentiments" of Washington which the War of 1812 had forced us to accept were not burned deeply enough into our national conscience. Unity of command in our armed forces did not occur as governmental policy before the National Defense Act of 1947, and the doctrine is still not wholly subscribed to, even though great strides in unity have been made through recent administrative acts.

Military Leaders in the Republic

Ghostly fears of military usurpation of power have persisted even to the present day, although since the Newburgh incident there has never been the slightest suggestion of a military desire to capture power.* Nor has the supremacy of civil over military rule ever been questioned. In fact it has been guarded religiously by military tradition and principle, "enunciated over

* Smith, *American Democracy*, p. 33.

and over again by national leaders from General Washington to General Eisenhower."*

Much has been written concerning the civil control of the military, the underlying premise of too many writers being that the military leader is a threat to free democratic government. The concept of civil control is valid because the sword should serve the state, not be the master of it. The military should be an instrument of the government, not the government itself. But any argument that civil control is necessary because military leaders are unreliable is pure nonsense. It might be timely to examine this premise objectively. In our culture the military leader springs from a democratic environment and is a real product of its treasured customs and mores. More than this, his dedicated purpose is to protect the American way of life at all cost to himself, and he takes a solemn oath to uphold the Constitution. It would seem that no other profession in our society would be safer from the temptations of unscrupulous acquisition of power.

Some writers hold that military service, being highly disciplined and authoritative, is incompatible with the individual freedoms common in civilian life, and thus military men are fundamentally undemocratic. Such reasoning assumes that the American way of life represents such uncontrolled license as would be typified by a gang of teen-age hoodlums, and forgets that every reputable profession and institution in the country is governed by discipline and authority. The profession of medicine, for example, is highly disciplined; law and theology have elaborate and rigid codes of ethics; and fields such as business and industry are often more authoritative than any military command. Indeed, it seems time that the inherent prejudices against

* Charles E. Merriam, "Security without Militarism: Preserving Civilian Control in American Political Institutions," in *Civil-Military Relationships in American Life*, Jerome G. Kerwin, ed., Chicago: University of Chicago Press, 1948, p. 156.

American military men be brought up from the cellar and examined in the pure light of day.

When this is done, perhaps we shall realize that American soldiers are as reliable and loyal in government as they are in a uniformed service. American officers are, first of all, good American citizens, as their record demonstrates. There should be nothing in the proud cloth of a uniform to set its wearer apart from those he is dedicated to serve and protect. Military men treasure American institutions as reverently as do those who pursue other professional careers. With this honest realization the overwhelming problems of national defense can be regarded without the emotional bias which so often leads to error.

The historical success of the United States Navy might well be attributed to its professional nature from its very inception. It was constituted as a federal force with unity of command. This was possible because of the general confidence that this element of power could not threaten civil government. Its very structure kept it separated from civil authority, and history provides no evidence of sea power usurping national authority, in contrast to that of ground power. By the same token, although short on history, air power has never been conceived as an instrument adapted to revolution. So there should be no fears on this score in the establishment of a strong professional air arm.

George Washington left us a heritage of military doctrine which we have been long in accepting as military policy. Public knowledge of this doctrine has come slowly and sometimes painfully, but its learning has steadily advanced. Washington believed that if we were to preserve our freedoms through continued independence we should rely on (1) a professionally trained military establishment operating under (2) the principle of unity of command. Emory Upton's study reaffirmed these two basic doctrines toward the turn of the last century.

A precondition to unity of command is unity of national pur-

poses and objectives. Today these are being enunciated regularly by our leaders of government. The policy expressed by John Foster Dulles in his speech of January 12, 1954 (see Appendix) is an example of maturely developed aims.

In the area of professional development much must be done to assure armed forces of the highest obtainable quality. But in the unity of command area heartening progress has been made. Although the United States faces a future which portends continued crises, never before has military policy been more harmonious with military doctrine. Military policy today is being studiously formulated with sober consideration of applicable military doctrines, and military commitments are slowly coming into line with what is militarily possible. We have reason for confidence that today our Argosie will show "by the beauty of her motion" the skill of her crew.

3. The Classical Doctrines from Europe

*Mean narrow maxims which enslave mankind
Ne'er from its bias warp thy settled mind.*
CHARLES CHURCHILL, *The Prophecy of Famine*

OUR announced military policy depends "primarily upon a great capacity to retaliate, instantly, by means and at places of our own choosing." * This policy wrests the initiative from would-be enemies and puts national policy one step closer to the military doctrine of celerity. "The cardinal principle of the new policy," wrote Walter Lippmann,† "is to get away from being pinned down, rigidly committed, and therefore without power to maneuver and with little freedom of decision." A policy which permits America to play by its own rules in pursuit of its own national objectives provides positive and purposeful guidance at a time when such guidance is most needed by all citizens.

A homely illustration which describes one aspect of this policy of massive retaliation was once given in a lecture by Major General Orvil A. Anderson, one of the architects of World War II American air strategy and, later, first commandant of the

* Speech of Secretary of State John Foster Dulles, January 12, 1954. See Appendix.

† In his syndicated column, "Today and Tomorrow," *Philadelphia Inquirer*, January 20, 1954.

Air War College. If a housewife is bothered by flies in her kitchen, he pointed out, she has several courses of action. She may kill them one by one with a fly swatter — a time-consuming and limited action of no lasting benefit; the flies continue to swarm in the open doors and windows — or she may put up screens to contain the flies and attack them with an insecticide, thus conducting a limited war. But this limited war breaks out every time the screen door is opened. And the flies persistently find ways to penetrate the kitchen. Always hovering at the barrier of containment, the flies find small holes and openings to invade. With this strategy, there is really no peace. Now as a final solution, he concluded, if the flies persist in invading, the housewife may have to do something about the stable behind the house. That is the source of the flies; that is where they breed, eat, and grow. This does not mean that the stable must in every case be blown to Kingdom Come with bombs. There are many other ways to keep flies from breeding there.

A similar example which General Anderson was fond of using, and which better illustrates the psychological facet of the retaliation theme, is that of the attractive woman being annoyed by a suitor. The man persisted in putting his hand on her knee and each time she politely pushed it off. General Anderson estimated that the young woman would have had no more trouble from the man if, instead of pushing his hand away, she had said, "I'm not going to push your hand off my knee, but if you put it there I'll slap your face!" It was highly unlikely, General Anderson thought, that the man would ever put this threat to a test, particularly if he had a glass jaw. And amicable relations could have been expected.

Nations, of course, cannot be compared with people, but General Anderson's examples help us to understand a policy which has long been military air doctrine. His repeated recitation of this doctrine led to a strong rebuke at a time when the

doctrine was not in harmony with policy, and his retirement from the air force was consequently hastened.

The doctrine of massive retaliation has, of course, been in effect since the Hiroshima air attack, and according to Winston Churchill has been responsible for what freedom remains in the world today. In a speech at the Massachusetts Institute of Technology in 1949,* Mr. Churchill said, "I must not conceal from you the truth as I see it. It is certain that Europe would have been communized and London under bombardment some time ago but for the deterrent of the atomic bomb in the hands of the United States." In substance, the British Prime Minister has repeated this statement many times before Parliament and elsewhere. This truth was also recognized by John Foster Dulles when, in a Detroit speech of 1953, he said, "We have for the last five years been waging peace through deterrent air power, although not many seem to realize it." So the new policy is not altogether new; only the general awareness of it is new, and this new awareness is resulting in a shift of emphasis in our military attitude.

Clausewitz

The roots of the policy of massive retaliation go back a long way. They can be traced to theories expressed by military scholars of the last century. The most influential of these was Carl von Clausewitz, whose treatise, *Vom Kriege*, was written a few years after the United States ended its second war with Great Britain. The Clausewitz conception of war emphasized massive attack, instantly, at the critical point of enemy strength. Many of the same words are used in describing the present

* Mid-Century Convention of the Massachusetts Institute of Technology, March 31, 1949, in A. Craig Baird, *Representative American Speeches, 1948-1949*, New York: The H. W. Wilson Co., 1949, p. 48.

United States policy, yet, when the Clausewitz doctrine is analyzed, vast differences in meaning can be discerned.

Although not native to America, the writings of Clausewitz have lent considerable direction to the conduct of war and politics in this country. Disciples of Clausewitz have appeared in every civilized army, and interpretations of his doctrine have been almost as varied as interpretations of Aristotle. Edward Meade Earle remarked in *Makers of Modern Strategy** that Clausewitz was more quoted than studied, and this is not surprising, considering that Clausewitz's major work† comprised eight volumes which have yet to be translated fully.

Certain Clausewitzian schools of thought, however, crystallized into various military doctrines, those for the German and French armies, most notably, and secondarily, those of the British and United States armies. These interpretations of Clausewitz reached their dogmatic zenith in World War I and even today are being followed to some extent. They exert no small influence on military thought. It is interesting to note that Clausewitz was studied by Marx and Engels, who incorporated many political interpretations of Clausewitz into the philosophy which is threatening world peace today.‡ So the doctrines springing from Clausewitz, with strange aberrations and embellishments, have appeared on opposing sides of both hot and cold wars.

No matter how well any theory is originally developed, portions of it may be pulled out of context, slavishly recited, and followed in such a way as to bear little relationship to the original. The Spanish Inquisition, the Huguenot Massacre, and many other bloody purges were done in the name of Christianity,

* Princeton: Princeton University Press, 1948, p. 93.

† *On War*, O. J. Matthijs Jolles, ed., New York: Modern Library, 1943; also, *On War*, J. J. Graham, ed., 3 vols., New York: E. P. Dutton & Co., 1940.

‡ Earle, *Makers of Modern Strategy*, p. 158.

all gross perversions of the basic theory. Clausewitzian theories have been equally perverted at great cost to mankind. In no other field than military art and science is a little knowledge a more dangerous thing.

Clausewitz was a Prussian officer of the old school, who joined the army at the age of twelve and participated in almost every Napoleonic war that touched Germany. He was, as might be expected, a military scholar, having attended the War School and also that school which was later to become the famous War Academy in Berlin. A favorite of the military reformer Scharnhorst, whose activities had so much to do with the ultimate defeat of Napoleon, Clausewitz was selected to tutor the Crown Prince in military art, and from this work came his first short essay, a summation of his instruction, *Principles of War*.*

Because the Prince's father made peace with Napoleon, Clausewitz publicly resigned to join Alexander I of Russia, who in 1812 was to give Napoleon his first decisive defeat without ever winning a battle. As a colonel adviser, it is a puzzle why Clausewitz drew such little meaning from this campaign which destroyed Napoleon not through battle, but through attrition. The dying spasms of Napoleon's system in the following two years appear to have made a stronger impression on Clausewitz than did the pivotal Russian campaign.

When Napoleon retreated from Moscow, Prussia again took up arms, and Clausewitz was reinstated in the Prussian Army. He participated as a staff officer in the various campaigns which gave Napoleon the *coup de grâce* and which restored the tarnished luster of Prussian arms. Perhaps it was this glittering rebirth of Prussian martial success that blinded Clausewitz and caused him to deal so lightly with the retreat from Moscow. He was, indeed, emotionally involved with the evidence.

* Hans W. Gatzke, ed., Harrisburg, Pa.: The Military Service Publishing Company, 1942.

After the Napoleonic wars Clausewitz was assigned to the staff of the War Academy, and while there he wrote his theory of war. This was published by his wife after his death in 1831, and immediately it began to affect Western military doctrine. Moltke soon validated Clausewitz's theory in Germany through three successful wars in quick succession: Denmark, Austria, and France.

Defeated France, suffering from an inferiority complex over her almost instantaneous collapse at Sedan in 1870, was deeply concerned over what had become of her former prowess, so well demonstrated under Napoleon. Foch, who as a youth had witnessed the German occupation with sullen anger, determined to find the way to restore France's military dignity. In pursuit of this he discovered Clausewitz, whose doctrines had become almost a German military religion. Soon the concepts of Jomini, held in France up to this time, were submerged by the flood of Clausewitz literature and discussion.

Jomini, a Swiss, had been one of Napoleon's more literate generals, far surpassing Napoleon himself in synthesizing the lessons of the long wars. But Jomini's rather limited and mechanical approach lacked the spark of deep political and social understanding found in Clausewitz. The Jomini system of rigid geometrical rules and maxims, such as "interior lines," no longer satisfied the French military leaders who pondered the disgrace of Sedan.

Foch's Principles

The interpretation of Clausewitz written by Foch in his own *Principles of War* in 1903* was a much oversimplified version of the original theory, but Foch introduced his conception of Clausewitz to the Supreme War School in Paris and it soon

* Translated by Hilaire Belloc, London: Chapman & Hall, Ltd., 1918.

gained almost unquestioned acceptance. These French concepts spread to the British Army and, as World War I materialized, American doctrine also fell in line. Thus World War I, probably the most bloody clash of all history, with eight and a half million people killed, was a struggle between belligerents who all followed the same philosopher of war. Yet the teachings of Clausewitz had been so mangled by various interpretations that there was adequate room for different doctrines, not only between enemies, but within each army.

What was this Clausewitzian theory which so captured the imagination of military leaders? What caused it to be so universally adopted by Western armies? Or if not adopted in the original, at least adopted piecemeal with manifold variations? To answer these questions, it is necessary to trace briefly the general attitudes toward warfare from the Renaissance.

War Following the Renaissance

The Renaissance brought a revival of learning in all spheres of human activity, including warfare. In the Middle Ages, armies had been little more than mobs. Strategy was almost nonexistent and tactics consisted of techniques for individual combat. The armored knight, as Toynbee has written, was a degenerate form, and armies collected to do battle were virtually helpless before better-organized troops of other cultures, such as the Mongols and the Mohammedans. The concept of battle during this period was as primitive as animal warfare: fight whenever contact is made, regardless of probabilities of victory or defeat.

In writing about the maxims of war in 1692,* Daniel Defoe illustrated the changes brought about by the Renaissance. He

* Daniel Defoe, *An Essay on Projects*, London: Cassell & Co., Ltd., 1894, pp. 149-164.

noted that in Cromwell's time the doctrine was always to fight at every opportunity, regardless of consequences: "Wherever you meet the enemy, fight him." But this philosophy had given way to a fencing game, with battle risked only when a general felt he had a definite edge. Consequently, armies never fought "without a manifest advantage," maneuvering in the field for days or even years without giving battle. Thus, many wars were decided with little or no bloodshed. This maneuvering for position, threatening of lines of communications and magazines, became a modified war of attrition. That king with the greatest wealth usually lasted longer and dictated the terms to the poorer king who could no longer afford to carry on the war. As Defoe put it, not the longest sword but the longest purse determined the outcome. The former animal approach to war, to fight under all circumstances, can be noted in Defoe when he wrote, "Even the weakest party would always come out to fight . . . and they that were beaten today would fight again tomorrow, and seek one another out with such eagerness, as if they had been in haste to have their brains knocked out."

Admirable as this attitude might have been from the standpoint of raw courage, the objective of unreasoned annihilation is hardly the purpose of war. With the Renaissance, the idea was dawning that the end product of war was not necessarily a victorious battle, but the political advantages to be gained. Machiavelli's *The Prince* related war and politics in this way and for the first time noted the network of conflicting interests between states, suggesting various ways by which they might be resolved short of battle. Sometimes battle provided these political advantages, and sometimes attrition of enemy resources achieved the identical political ends. At other times, merely the threat of battle losses or attrition would suffice.

Wars of the eighteenth century were ridiculed by many who believed that annihilation of the enemy was a preferable policy.

Lord Chesterfield remarked, "War is pusillanimously carried out in this degenerate age; quarter is given; towns are taken and people spared; even in a storm, a woman can hardly hope for the benefit of a rape." The annihilation view of war, however, was not Chesterfield's, but his remark is descriptive of the strategy of his time.

This period of limited war has been called by Quincy Wright^{*} the period of professionalization of armies. Defense and fortifications were emphasized and elaborate rules were followed in pursuit of limited national objectives. Frederick the Great brought this type of war to its highest point.

Thus war in this period between the Renaissance and modern times became a formal and codified duel. Political aims were weighed against the cost of battles and wars. Armed conflict was generally conducted by the ruling class, who recruited the peasantry for men-at-arms. Armies were small in proportion to populations, usually numbered by tens of thousands. The general populations, and particularly the middle classes, were thus little concerned with these wars, which, although relatively harmless, were almost continuous.

The American Revolutionary War and the War of 1812 were fought much along these lines. George Washington hardly could have achieved our independence if the winning of battles had been a condition for success. Of the twenty-three recognized battles fought in the Revolution, the Americans lost well over two thirds of them.[†] Yet from a political point of view the over-all campaign was a success. Similarly, the second war with Britain would have led to our downfall if battle victories had been the ultimate measure of success. But here again we at least were allowed a draw after losing almost every engagement.

^{*} *A Study of War*, 2 vols., Chicago: University of Chicago Press, 1951, Vol. I, p. 295.

[†] See "American Revolution," *Life*, July 3, 1950, p. 38.

Obviously, there is considerably more to war than the conduct of battles.

In defining war as the continuation of politics by violent means, Clausewitz fully recognized the interrelationship of war and politics. The means, he qualified, may not be actually violent, but the threat of violence is necessary to reach a decision of some sort. His emphasis on battle as the final payoff in diplomacy, as cash is in trade, submerged his idea that the political objective was the final aim in war and that the political objective might also be achieved by economic or psychological pressures. He recognized, however, that each nation has certain maximum and minimum objectives in war and that somewhere between these extremes are terms that can be agreed upon, after reckoning how each nation's fortunes have fared in the conflict. All of this, in the Clausewitzian theory, was in keeping with the way wars had been conducted since the Renaissance. But Clausewitz drew one other conclusion which changed the whole complexion of war for the remainder of history.

Doctrine of Violence

If war is politics by violence, reasoned Clausewitz, then that nation which is the most violent will win. "War is an act of violence pushed to its utmost bounds."^{*} Therefore, warfare should be fought not on the attrition principle, but on the shock principle; not as a wearing down of the enemy, but as a mass attack at his source of strength; not as a rapier thrust, but as a bludgeon blow. The strategy of the rapid mass attack at the source of the enemy strength grew out of this theory of warfare and gained more credence with the years, particularly with the intellectual acceleration imparted by Marshal Foch. World War I typified this doctrine at its highest when Clemenceau

^{*} Earle, *Makers of Modern Strategy*, p. 102.

said, "We make war to the end — to the very end of the end." *

The industrial revolution which was dawning at the time of Napoleon contributed to the growth of the Clausewitz concept because with steadily improving means of communication and transportation, mass armies could be assembled, moved, and controlled with more facility. The rise of nationalism which led to the nation-in-arms concept of Napoleon and the total-war idea of today also fit with the Clausewitz concept of mass and "utmost violence." This total-war idea, moreover, was suggested by Marx and Engels and has reached its apogee in the present Russian system of government. Here a nation is organized at all times for war, with every citizen contributing to the one end of military power. There is little distinction between war and peace in such a society.

Clausewitz died before his work was completed, and his writings toward the end of his days considerably qualified his oft-quoted earlier concepts. He was finally seeing many exceptions to his principles. One of his later chapters even discussed limited war.† Unfortunately, subsequent students of warfare tended to overlook these qualifications which edged away from the "utmost violence" idea toward the more political concept of war held in earlier centuries.

Dennis Hart Mahan and the Doctrine of the Offensive

One doctrine which has been adopted by American forces in a rather unquestioned way is the doctrine of the offensive. In American military thought this doctrine actually predated Clausewitz, for it was first hammered home at West Point by Dennis Hart Mahan, father of the naval philosopher. Perhaps no

* "Message to the American People," *New York Times*, September 20, 1918, p. 24.

† Graham, *On War*, pp. 131-139.

other individual has exercised such a widespread and lasting influence on American military thought as has Dennis Hart Mahan, and yet he is almost unknown in American military annals. This early Mahan was a teacher more than a writer. His influence on the military leaders of the last century began with their early instruction at West Point, where Mahan was a faculty member from 1826 to 1871, a period covering two generations of professional officers. Mahan was himself a graduate of West Point in the Class of 1824, and except for four years in France, where he was sent to study engineering, his tenure at West Point was almost continuous. Like Jomini, who had hardly ever heard a shot fired in anger, Mahan acquired his knowledge of war from a study of past masters and conflicts. "It is in military history," he wrote, "that we are to look for the source of all military science." And from his study he gained a marked preference for the offensive.*

Jomini

It is not unlikely, however, that Mahan's years spent in France between 1826 and 1830 put him in contact with Jomini's concept of war. Antoine Henri Jomini † had gained a reputation as a military savant before Napoleon was defeated. He had risen, more as administrator than as soldier, to chief of staff for Marshal Ney, who helped him publish the first volumes of a treatise on the campaigns of Frederick the Great. In this work, Jomini attempted to make certain generalizations on the conduct of war and to compare Frederick with Napoleon. Napoleon read some of this and had Jomini ordered to his staff. No doubt Jomi-

* R. Ernest Dupuy, *Men of West Point*, New York: William Sloane Associates, 1951, pp. 12-24.

† *Précis de l'art de la guerre*, 2 vols., Paris, 1838, translated by O. F. Winship and E. E. McLean, *Summary of the Art of War*, New York, 1854. See also Earle, *Makers of Modern Strategy*, p. 84.

ni's scientific approach to the conduct of battle appealed to Mahan, the engineer. The anatomical analysis of war provided by Jomini coincided with the growing respect for "exact" sciences. Yet it did a disservice to military scholars by confining war to the theater of action as something entirely separate and distinct from the whole life of a nation.

There are some features of the Jomini theory which were lost with the overwhelming credence given to Clausewitz toward the end of the nineteenth century. These features warrant more critical examination, for they typified what little American doctrine existed at the time and as preached by Dennis Hart Mahan. Jomini decided that the fundamental principles of strategy were:

1. Bringing, by strategic measures, the major part of an army's forces successively to bear upon the decisive areas of a theater of war and as far as possible upon the enemy's communications, without compromising one's own;
2. Maneuvering in such a manner as to engage one's major forces against parts only of those of the enemy;
3. Furthermore, in battle, by tactical maneuvers, bringing one's major forces to bear on the decisive area of the battlefield or on that part of the enemy's lines which it is important to overwhelm;
4. Arranging matters in such fashion that these masses of men be not only brought to bear at the decisive place but that they be put into action speedily and together, so that they may make a simultaneous effort.*

Clausewitz merely altered the emphasis of these principles and added others which dealt with political and psychological aspects of war. He managed to disparege the Jomini dogma of

* *Précis*, Vol. I, p. 158, in Earle, *Makers of Modern Strategy*, p. 85; also, in Jomini, *Clausewitz, and Schlieffen*, Department of Military Art and Engineering, USMA, West Point, N. Y., 1951, p. 18.

geometrical maneuver, but otherwise seems clear of bias. As abstracted by Dallas D. Irvine,* the Clausewitz principles involve six clear concepts:

1. The conception of war as merely the continuance of the perpetual conflict between states with the added instrument of violence.
2. The doctrine that absolute war is the form to be approximated as closely as possible, by absolute war being meant war in which violence is employed to the utmost limit of its effectiveness without voluntary restriction of effort or means.
3. The doctrine that the destruction of the enemy's armed forces should consequently be the immediate end in war.
4. The doctrine that moral force in the application of violence, rather than geometrical maneuvers, is the primary means to this end.
5. The doctrine of the necessity of the offensive in war whenever and wherever it can have a chance of success.
6. The doctrine that the simple, direct attack is the best.

It is significant, moreover, that Clausewitz considered the defensive offensive or counterattack as the operation which promised the surest and greatest reward. He considered the defensive the "stronger form of war" but with a "negative object." Thus, strategy should turn from the defensive to the offensive as soon as adequate strength was gained to do so in order for the "positive object" to be achieved.†

Nine Principles of the War Department

We can recognize the genesis of the nine principles of war now held by most American forces in these two lists from the

* Dallas D. Irvine, "The French Discovery of Clausewitz and Napoleon," *Military Affairs*, IV (1940), p. 154.

† Jomini, *Clausewitz, and Schlieffen*, p. 39.

military prophets. The principles of (1) mobility or movement, of (2) the prime objective, and of (3) the offensive, as reiterated by Mahan, can be found in the Jomini list, and thus predated the acceptance of Clausewitz. The "simultaneous effort" idea of Jomini may have led to (4) the cooperation principle now accepted, although not stressed by Mahan. Both lists provide us with the idea of (5) mass or concentration of force, although this is highlighted far more by Clausewitz than by Jomini. And Clausewitz added the idea of (6) simplicity, which was also adopted in the American Army.

Of the nine principles published by the War Department Training Regulation 10-5 on December 23, 1921, which are taught today in many service schools, all can be traced directly to Jomini and Clausewitz. The three remaining of (7) security, (8) surprise, and (9) economy are also found in Mahan's teachings. He repeatedly asserted that the spade is as useful in war as the musket,* and that the enemy should be attacked "suddenly where he is not prepared to resist." Mahan fully taught the economy-of-force dictum which has come to us unchanged.†

It is interesting to note how written military doctrine was tied to European theories. The Mahan concepts existed more in American military tradition than in literature, but the famous nine principles of war were abstracted almost totally from Franco-German writings. The heritage left by George Washington, Alexander Hamilton, and Emory Upton regarding unity of command and professionalism was not pointed out in the War Department regulation of 1921. Nor was the impact of technology, as clarified by Admiral Mahan. Perhaps these doctrines did not fit the implied category of the regulation, which was that of limiting war to the theater of action. Moreover, the Clausewitz

* W. T. Sherman, *Personal Memoirs*, New York: Charles L. Webster & Co., 1891, p. 396; also D. H. Mahan, *Treatise on Field Fortifications*, 1836; and Dupuy, *Men of West Point*, p. 20.

† Dupuy, *Men of West Point*, pp. 70, 71.

doctrines of moral force and favorable public opinion were significantly missing from the regulation.

Although not mentioned specifically as a principle, the Foch interpretation of utmost violence with large bodies of troops has been generally accepted by the American Army since World War I,* though it has been modified somewhat by the introduction of increased mobility and firepower in World War II. General Eisenhower's "guiding principle was to avoid at any cost the freezing of battle lines . . . in a pattern similar to the trench warfare of World War I,"† yet this was a constant danger when large ground forces were employed. No radical change has occurred, moreover, in the corollary idea of absolute or "total" war.‡ The concept of total war still holds sway, regardless of the cold war and Korean experiences of limited conflict. General Omar Bradley's "wrong war" quotation bears this out. The "immediate end" is accepted by surface forces as Clausewitz stated it: the destruction of the enemy's armed forces. And Jomini's preoccupation with winning territory holds a grip on the minds of those Americans who still insist that "to feel that you can win a war without fighting on the ground . . . could be a fatal delusion."§ It seems that the fixed belief that these principles of war, written and implied, are immutable has been a stultifying influence on the evolution of military thinking.

The Jomini-Mahan Principle of Celerity

It might be advisable to re-examine the Jomini principle which Mahan abstracted as celerity. This principle frees military think-

* See "U.S. Rules of Land Warfare" in Wright, *A Study of War*, Vol. I, p. 292.

† *Crusade in Europe*, p. 449.

‡ Wright, *A Study of War*, Vol. I, p. 326.

§ Elie Abel, "Pros in Pentagon Cool to New Look," *New York Times*, January 24, 1954.

ing from dogma. "Attack the enemy suddenly when he is not prepared to resist," wrote Mahan. "Celerity is the secret of success." * Other principles derived from the French version of Clausewitz have overshadowed the American principle of celerity to the point where it is all but forgotten in military literature, although it was certainly followed in the field operations (if not the strategic plans) of both Eisenhower and MacArthur in World War II.

Modern conditions of nuclear air power make possible rapid and successive blows, or even simultaneous blows, at decisive areas and directly upon communications, without greatly compromising one's own forces. This military celerity could leave a threatening enemy completely unable to defend himself, since air power can strike anywhere at any time. There are no natural barriers to stop it. "Foremost among the military lessons," wrote Eisenhower after World War II, "was the extraordinary and growing influence of the airplane in waging war." † And when the atomic bomb was loosed on Hiroshima, he prophesied a "revolutionary impact" and a "new era of warfare." ‡

Now the new era is upon us, like it or not. We cannot wish it away. We can only deter this kind of warfare by being prepared to wage it with more skill than any enemy. A policy such as instant retaliation should be most discouraging to a warlike neighbor. And with this in mind, another statement of D. H. Mahan bears review: "Carrying the war into the heart of the assailant's country . . . is the surest plan of making him share [the war's] burdens and foiling his plans." § Air power can do this at the outset. Massive, instant retaliation, then, becomes a strategy of air celerity.

* Dupuy, *Men of West Point*, p. 70.

† Eisenhower, *Crusade in Europe*, p. 452.

‡ *Crusade in Europe*, p. 456.

§ Dupuy, *Men of West Point*, p. 61.

The doctrine of celerity has been reaffirmed in the military policy of the United States. It is no longer a celerity tied to the battlefield itself. It is no longer applicable only to the time of shooting war. The policy of celerity which has been described by Dulles and Radford involves all elements of national power: military, political, economic, and psychological. And the policy of celerity is as appropriate in time of peace as in time of war, particularly when peace is tenuously threatened by the machinations of an aggressive and unscrupulous power.

Celerity in the strictly military sense means swift, powerful, integrated actions directed at vulnerable and unexpected points of the enemy war-making establishment. In the much broader sense implied by the Dulles policy celerity means the ability and will to retaliate with any or all means of national power, at times and places of our own choosing. A nation that commits an aggression undoubtedly calculates the risk and expects resistance at the point of aggression. Having the initiative, she is prepared to withstand the anticipated local resistance, as were the Communists in Indochina. If, however, an aggressor nation is unable to calculate the risk of an aggression because she has no way of knowing from which quarter the retaliation may come, she will be less likely to commit the local aggression in the first place.

But a policy of celerity in the application of power to achieve peace with honor is only as effective as the American public understands and applies it. Mere announcement of a policy does not bring the policy into reality, however logically arrived at. In a free democracy every citizen is concerned with the problem of national security, and every citizen influences the manner in which national power is applied. The policy of celerity must be understood and accepted by the people if it is to be anything more than an intellectual conclusion of government leaders.

In war, the doctrine of celerity, which was abstracted by Jomini and Mahan, has proved eminently successful. In cold war, there is reason to believe that celerity can lead to the kind of security to which all free people aspire. But it must be applied courageously with full understanding of the risks involved and with the support of the American public.

Other aspects of the Jomini-Mahan theories, however, reduced the understanding of war by artificially confining it to the battlefield. And although Clausewitz had related war to political life, this aspect of his doctrine has been used more frequently as a pat definition than as an invitation to study war in its total environment.

The Victorian View of War

Still another influence was at work to isolate and deter the serious study of war. Many liberal elements were condemning war in the nineteenth century as an unnatural and immoral aspect of social life, something that should be purged from men's minds. By not thinking about it, went the philosophy, war would cease to exist and good would triumph over evil. This same Victorian philosophy was applied to other disturbing components of life, such as sex, insanity, and avarice. No attitude could have done more to create military ignorance (and promote more horrible wars) than the "see no evil, hear no evil, speak no evil" treatment of the subject of war. Unfortunately, this general attitude has steadily grown, even in the face of larger and more frequent wars. To expel the art of war from general study on moral grounds is not in keeping with our present enlightened educational philosophy, but the effort to wish war away by ignoring it still persists. Perhaps social science is in need of a Sigmund Freud who will examine this unseemly subject and clearly relate it to sociology and politics.

The Concept of Mass Offensive

With the science of war delimited to the actual armed conflict and the preparation for it, and with but a handful of professional soldiers studying even this limited conduct of war, it is no wonder that the concept of mass offensive grew into such an overriding principle. War existed only for the battlefield, and there it should be waged with the utmost vigor and fierceness. A military leader could give little thought to negotiation, for example, because that was reserved for the civil power. Only complete annihilation of enemy forces lay open as a military objective.

Considerations of strategy which would achieve national objectives were generally neglected. Civil leadership should define the objectives, it was believed, and since it is difficult to delineate precise aims in a dynamic democracy, the objectives generally went unstated. Thus military leaders could only attack opposing forces as the obvious objective, and civil leaders seldom spelled out national objectives until wars had reached critical proportions, as with Wilson's Fourteen Points and Roosevelt's Unconditional Surrender.

The emphasis on offensive fury, however, did not dominate American military doctrine until World War I. Even the mid-nineteenth-century concepts of Dennis Hart Mahan, because they were based on battlefield war as distinct from politics, helped to lay the foundations for the idea of massed-infantry offensives. His wise precepts were soon overwhelmed by new thought which concentrated still more on the battlefield. The maxim of celerity lost its emphasis with the neo-Clausewitzian conception of momentum and hugeness. Celerity was oversimplified in the principle of "mobility and maneuver," which itself was subordinated because it was inimical to mass. The larger a force became, the less maneuverable it was. The celerity of Mahan had a some-

what broader connotation than mobility and maneuver, however, for it included nimbleness and openness of mind and, as in the massive-retaliation doctrine, the capacity to respond instantly "by means and at places of our own choosing."

Mahan's principle of economy of force also was weakened by the Foch-Clausewitz theory. When Mahan urged that commanders must "do the greatest damage to our enemy with the least exposure to ourselves,"* this principle was well regarded in a small, penurious republic. A scarecrow army hardly able to domesticate the aborigines on its distant frontier, let alone conduct a major war, had to husband its resources prudently. Although still on the books as a recognized principle of war, the doctrine of economy was paid only lip service in the past two World Wars, where overwhelming strength in all categories of arms was raised and employed by mass attacks in the Foch-Clausewitz manner. Certain it was that economy of force became a secondary consideration to the doctrine of concentrated assault on the ground when it came to our planned attacks against the strongest military positions of the enemy—fortress Europe in the West, and the home islands of Japan in the East.

The gigantic Olympic Operation planned for the invasion of Japan in October 1945 was the continuation of the principle of mass attack with ground troops. Military scholars have not yet explained why Olympic was deemed necessary, particularly when Japan was making peace overtures in the spring of 1945 and actually succumbed before the land invasion was launched. This massed ground strategy could hardly have been following the economy-of-force principle stressed by Mahan. Today's pronouncement that air power will constitute the major force is a step toward bringing the doctrine of economy of force in line with military policy.

* Dupuy, *Men of West Point*, p. 17.

The Mexican War

Seven hundred and two cadets graduated from West Point between 1830 and 1846. They applied Mahan's teachings so well in the Mexican War that from a military standpoint we gained the respect of the world. One column led by Zachary Taylor crossed the Rio Grande, took Monterey, and defeated a large Mexican force at Buena Vista. Winfield Scott of Lundy's Lane fame in the War of 1812 had made certain that key men on Taylor's staff were young professionals. West Pointer William W. S. Bliss, Taylor's Chief of Staff, was noted for military acumen and provided the knowledge lacked by "Old Rough and Ready." General Scott himself led the main and final invasion from Vera Cruz to Mexico City in a masterful way, and gave as his fixed opinion:

... but for our graduated cadets the war between the United States and Mexico might, and probably would, have lasted some four or five years, with, in the first half, more defeats than victories falling to our share, whereas in less than two campaigns we conquered a great country and a peace without the loss of a single battle or skirmish.

Truly, professional military education and the concepts of Mahan were saving the republic much blood and treasure. In this one instance, the return on the small educational investment was phenomenal.

Several young professional officers who were to play leading roles in our national destiny cut their teeth on war in this conflict with Mexico. Among these were Ulysses S. Grant and Robert E. Lee, Jefferson Davis and Thomas J. Jackson.* At Buena Vista, Henry Clay, another graduate of West Point, was killed. This was the son of the same Henry Clay who had been instrumental

* Dupuy, *Men of West Point*, p. 20.

in exciting war with Britain in 1812 and who humbly signed the Treaty of Ghent. The elder Clay still sat in Congress, a man who had finally learned the value of military education.

The Civil War

Although successful beyond all dreams in the small Mexican War, military doctrine had not been learned widely enough to cope with the enlarged conditions of conflict which were sparked by the firing on Fort Sumter in 1861. The proportions of war were so vastly compounded as to reach and surpass the Napoleonic application of the nation-in-arms principle, which we now refer to as "total" war. Opposing armies at Bull Run numbered about thirty thousand, but by the end of the war the North had over a million under arms, and the South possibly half that number. The viciousness of the conflict is indicated from the compilation of war deaths: one third of a million for the North and one fourth of a million for the South. Considering that the population was less than half of what it now is, the United States has never experienced such a bitter and costly war. And military doctrine, unfortunately, was learned by ear, by the roar of the guns and the screams of the dying, rather than from the calm study of military history applied to the current political, social, and technological climate.

At the opening of the Civil War, Lieutenant General Winfield Scott sat in Washington as the Commanding General of the United States Army. He was seventy-five years old and his career was drawing to a close. Secretaries of War Davis and Floyd with the help of Southerners in Congress had progressively stripped him of every vestige of authority until his office had become a mockery. Respected as a hero rather than as a military authority, his vast knowledge of warfare was to be lightly thrust aside by amateurs. Politicians of the day knew so

little of war that they could not even appreciate that there was anything to learn. For twenty years Scott had held his post as a military statesman of first rank with a brilliant record, yet he was discarded after the defeat at Bull Run with scarcely a by-your-leave. He lived to see his nation torn asunder by military blunders of every description, and died at West Point in 1866.

The doctrines of unity of command and professionalism were largely ignored by North and South alike with tragic consequences. The South was first to relearn one of these military principles by employing professional soldiers in responsible posts whenever possible, while the North was still plagued by incompetents like Benjamin Butler and Ambrose Burnside. Unity of command, both North and South, rested only with Presidents Lincoln and Davis. Lincoln learned his lesson after three years of bloody stalemate and in early 1864 he placed Grant in charge of all Union armies. Grant himself had convinced Lincoln of the need for unity of command. Lee, too, eventually became tantamount to Commander in Chief, though he was never honored with that official status.

The doctrine of the offensive with massed troops directed at the decisive place was not clearly appreciated until Grant took command of the Army of the Potomac and began his inexorable advance on Richmond. (Under the pronounced political objectives of the North, this became a necessary strategy, but it need not have set the pattern for *all* wars.) Not until this offensive did Lincoln give unlimited support to the theater of greatest consequence.

The South adopted a defensive policy as a nation, believing that if it could hold out, the North would grow tired and leave the Confederacy in peace. Yet the strategic military offensives undertaken by Lee stiffened the Northern resolve to crush the South and the American annihilation doctrine was born. A more passive defense might have been politically more expedient to

the South. But military doctrine was nonpolitical, and few statesmen understood the art of war.

It is interesting to note, however, that the most significant victory of the war occurred at Gettysburg with Meade in a static, defensive position and Lee attacking. This example might have been emulated in World War I when defensive tactics were so predominant over the offensive. Yet the Foch doctrine of mass attack held a stronger appeal.

Analysis of Offensive and Defensive Doctrines

The difference in the effectiveness of offensive and defensive tactical doctrines is largely the result of weapon developments. No doctrine of battle offensive can hold true unless examined in its weapons environment. Technological advance causes change in all modes of warfare, and the variable nature of offensive-defensive doctrine must always be re-examined. German monopoly of the breech-loading field gun gave her superior offensive firepower in 1870, but the machine gun on both sides prevented the offensive from overcoming the defensive in 1914-1918.

Since American adoption of Clausewitz, however, it has been held that a massed ground offensive is the best general policy, regardless of weapon changes. This is supported by a simple syllogism.

Major premise: The object of war is to reduce the enemy's will to resist.

Minor premise: His will to resist is primarily a function of his armed might.

Conclusion: Therefore, his armed might must be destroyed.

In the restricted connotation of war as merely a clash between armed forces, it is thus argued that the offensive must be taken in order to destroy the enemy's armed might. This is the Cannae principle, yet Hannibal was ultimately driven from

Italy by the less glorious Fabian strategy of a harassing defense, just as was Napoleon driven from Russia.

Both major and minor premises of the Clausewitz syllogism bear examination. Let us first look at "The object of war is to reduce the enemy's will to resist." Here, as noted elsewhere in Clausewitz, "our will" should be added to the phrase, to read: "The object of war is to reduce the enemy's will to resist *our will*." This *relationship* of our will vis-à-vis the enemy will is frequently omitted from the reasoning. If our demands are not too objectionable to the enemy, his strength of resistance is weakened. On the other hand, if our own will is irresolute, resisting our will seems to hold more promise. Therefore, the premise of reducing "the enemy's will to resist" does not reflect an absolute condition, but a relative and variable condition, depending not only upon our war aims, but upon our own resolution to pursue those aims. Neither of these conditions are purely military factors.

It is deeply implicit in the major premise, however, that *complete* collapse of the enemy's will is the end in view. At least this must be so if *complete* annihilation of his armed strength is contemplated. Nowhere does Clausewitz recommend limited action merely to reduce the enemy will vis-à-vis its opponent. This premise seems inconsistent with his definition of war as an extension of politics, for in politics degrees of advantage are considered in fencing for national objectives. Although violent by definition, warfare has generally been conducted and completed throughout history with *degrees* of national objectives in mind—not with the aim of complete and absolute capitulation of the enemy will.

The minor premise, "His will to resist is primarily a function of his armed might," seems more valid than the major premise but is still subject to some question. The sciences of psychology and sociology have shed considerable light on the concept of

volition since the time of Clausewitz. It is not so much the existence of a military establishment that determines a people's will to resist as it is their confidence in it. If they are led to believe that no personal or collective protection is possible from their armed force, their defeat can be possible without further conflict, as witness the collapse of Japan while still armed with effective ground forces numbering over three million. In other words, the will of a nation to resist is not always dependent upon its armed strength, but rather upon its *belief* in its chances for political success.

Even after the collapse of the French armed resistance at Sedan in September 1870, France did not capitulate until early 1871. She still hoped for a sortie by Marshal Bazaine's forces besieged in Metz, or that new armies could be raised as they had been after the French Revolution, or that she could enlist the aid of England or Austria. She vainly tried to defend Paris, and not until every glimmer of hope was extinguished did she succumb. Therefore, it was not lack of armed forces per se that caused her surrender as much as it was her lack of *confidence* in the ability of France itself to survive.

Lack of confidence by the people in their government resulted in the Russian collapse in 1917 long before the Central Powers had destroyed the Russian forces. In fact, Russian arms had achieved a great victory in 1916. It was not the existence of the armed forces that was an issue with the victim, but the belief that the armed forces would not or could not act in the best interests of the people. This *belief* can be induced by other than violent conflict, as was well demonstrated by Hitler in the Austrian *anschluss* and more recently by Russia in the bloodless conquests of Czechoslovakia and China.

It can only be concluded that the Clausewitz dictum of war by utmost violence should not be wholly accepted, since national objectives are frequently attainable, even in war, by other

means than utmost violence. And in some instances utmost violence may work contrary to national interests, as with the "unconditional surrender" policy of World War II, which undoubtedly prolonged the war and left power vacuums in Europe and Asia. Thus were created new problems more critical than the ones we hoped to solve by unconditional surrender.*

It can be reasoned, however, that any nation today would be seriously shortsighted not to *prepare* for a war of utmost violence, simply because this concept is so well established that it must be expected from an enemy. But utmost violence need not be confused with massed ground attack. Nor should we be led to believe that this is the only type of war and allow ourselves to be "nibbled to death" as Vice-President Nixon put it in his Florida speech of March 1954.

Naval doctrine has never wholeheartedly subscribed to the mass-offensive principle. In the Civil War, for example, there was practically no Southern navy. The tightly organized professional United States Navy did not defect to the South as so many army units did. Forty navy ships threw a blockade on the entire southern coast and defeated what few fighting craft the South was able to commission, notably the ironclad *Merrimac* and the British-built *Alabama*. By 1863 the blockade was being felt in the South, and one can only speculate how long the Confederate states would have held out if this sealing off of trade had been the *only* pressure applied by the North. Perhaps a reconciliation of the two sections would have been possible

* See John W. Wheeler-Bennett, *Nemesis of Power*, London: Macmillan & Co., Ltd., 1953, for a good case against Germany's application of the utmost-violence theory. Although having fought seven wars under this philosophy, three (Jena, and the two World Wars) were overwhelming defeats following initial military success. Public opinion, revulsed at surprise attacks and disregard of treaties, organized strong coalitions which ended victoriously. Vicious unrestricted submarine warfare was good military strategy, but stupid national policy for it brought America into the war.

without the bloody cost of land conquest by the North. On the other hand, a long blockade requires resolution and patience on the part of the blockader. With few casualties it is highly possible that the North would have lost interest in the conflict before the South came to terms.

Emory Upton and Alfred Thayer Mahan

There was surprisingly little educational profit from the Civil War. Not until the 1880's was a concerted effort made to consolidate some of the lessons which had been learned the hard way — at the cost of lives. Service schools were created, finally, by both the army and navy, and two military philosophers, Emory Upton* of the army and Alfred Thayer Mahan of the navy,† son of the West Point professor, began to analyze war.

Upton's central thesis was that wars are won by professionals, and he traced American military history in detail to make his point. Mahan's idea was that great national powers must be sea powers and vice versa, and that rapidly increasing technological development and commerce were increasing the validity of his theory.

The most signal contribution made by Alfred Thayer Mahan in the field of military doctrine was his recognition that the conduct of war changes rapidly with technological advance. Weapons, he said, advance faster than the tactics and concepts of war for employing those weapons. Thus military systems always lag behind weapon capabilities. If this Mahan doctrine of weapons' effects upon tactics and strategy had been appreciated earlier, much of the World War I bloodshed might have been avoided. By the time World War II was fought, consider-

* Upton, *Military Policy*.

† *The Influence of Sea Power upon History, 1660-1783*, 12th ed., Boston: Little, Brown & Co., 1945.

ably more emphasis than ever before had been given to the integration of new weapons into tactical forms, but strategic doctrines remained relatively unshaken by technology. Mass land conquest was the fundamental philosophy for all strategy, even as it had been taught by Napoleon to his two disciples, Jomini and Clausewitz.

Emory Upton and Alfred Thayer Mahan were two exceptions in the period of military darkness following the Civil War. Little of what was learned was consolidated into the literature of military art and science in an organized way. This was despite a great profusion of histories, memoirs, and polemics. No profound interest in the art of war as national conflict was displayed, even though heated enthusiasm was evoked by the Civil War as a dramatic experience. And arguments in the Jomini manner still rage as to the efficacy of outmoded tactical maneuvers. (Gettysburg dispositions were studied in army schools until just before World War II.) The neglect of war in its larger context during this period can no doubt be explained in part by the security we felt with our then successful isolation policy.

In France, as we have seen, the concepts of Jomini were replaced by the Clausewitz theories in 1885, when the studious Foch was absorbing the lectures of Cardot, the first Frenchman to really study and interpret Clausewitz. Here was a small beginning of the study of war as a part of the life of a nation. But this revised doctrine had little influence in America before the present century.

Dominance in United States of Jomini Concepts

In America, the concepts of Jomini, as interpreted and expounded by Dennis Hart Mahan, provided the core of military theory for the United States Army. The horizon of war was strictly limited to the theaters of combat, and battle was the

end-all, the final objective. Almost no connection was made between war and a nation's political objectives. War was a separate and distinct phenomenon from statecraft and politics. Of course, in time of war, statesmen became inexorably involved with the conflict, whereas the military attempted to remain studiously aloof from politics of any sort.

This attitude toward war seemed in keeping with the American principle of civil control of the military, but it left military thinkers with such limiting parameters and such restricted insights that no comprehensive theory of war was possible. In the confined military frame of reference, only one national objective was considered, the simple annihilation of the enemy in battle as typified by the unconditional-surrender doctrine of Grant. Nothing less than battle victory seemed possible unless the horizons of war were raised and integrated with national objectives.

So the Dennis Hart Mahan-Jomini concept of war repressed our military thinking throughout the nineteenth century and has only been altered by a strong tinge of Foch-Clausewitz picked up during the first war against Germany. Present army doctrine still limits war strictly to the battlefield and conceives of it essentially as a mechanical problem of mass movement and firepower, delivered offensively at the decisive time and place.

The Clausewitzian definition that war is an extension of politics has been little analyzed in Western democracies where the principle of civil control discourages military professionals from considering political aspects of war. Thus the idea of battlefield annihilation from Foch and Clausewitz has been intensified in military study and has "stubbornly identified the idea of war with the utmost violence." * Military students have been preoccupied with the rage of numbers. Skill and refinement have taken second place to sheer force. Quantity has been more

* N. Nickerson, *The Armed Horde*, 1940, p. 52; in Earle, *Makers of Modern Strategy*, p. 93.

sought than quality whenever the two aims have been in conflict. Our enemy will comply with our will only if he is "positively disarmed," wrote Clausewitz. And this has been our military creed without reference to what followed in the Clausewitz maxim: ". . . or placed in a position that he is threatened with being disarmed." (Italics added.) Western generals have not fully pursued this qualifier beyond the purely military sphere. Even Clausewitz passed it over lightly, but many forces — economic, political, and psychological — could and have provided the pressures necessary for disarming the enemy.

Land Conquest Only a Means

The taking and holding of land, which has so often been regarded as an ultimate aim, was also supported by Clausewitz. Conquest of territory destroys the enemy's ability to rebuild his army and saps his will, goes his argument. (It may here be observed that bombing does precisely that. Sixty-six major Japanese cities were destroyed from the sky in the second World War.) But Clausewitz in no case urged the taking of territory as the final *objective* of war. The objective is the enemy military establishment in every case, and land conquest only a means to that objective. Moreover, he admitted that the objective of violently disarming an enemy might be made unnecessary by psychological disarming.* In which case the enemy sees that the struggle will be too costly and victory unlikely. This latter concept is at the root of our massive retaliation doctrine, even if it is not accepted by those of the neo-Clausewitz school who still conceive of war only as land conquest.

When the evolution of military doctrine is understood, it assumes deeper meaning. The so-called immutable principles of war in some situations may not even be valid. They stem essen-

* Earle, *Makers of Modern Strategy*, p. 107.

tially from the Napoleonic wars, and no doubt applied very well to those wars. But they are applicable today only when modified to meet the present world situation, politically, technologically, and culturally.

We must carefully analyze our maxims, for as Coleridge wrote: "A man of maxims *only* is like a Cyclops with one eye, and that eye in the back of his head." Even the concept of the offensive must be carefully examined, not in the dim light of nineteenth-century conditions, but in the floodlight of the current milieu and of modern scientific knowledge. The offensive can be taken in many ways other than by a war of annihilation on the ground, executed with utmost violence. In fact, considering the awesome nuclear firepower available to both sides, any mass ground offensive would appear to be the sheerest folly.

The limited effectiveness of the best air defense, despite the views of Vannevar Bush,* throws more weight to the air offensive as a general principle to be adopted today. This air offensive must be *prepared* to wage war with utmost violence, but there is no need for it to do so if political objectives can be achieved through applying lesser force. Limited wars are always a possibility, and the air offensive must expect to have its military capabilities arbitrarily limited in order to conform with national objectives.

Unity of command is equally important as a means to assure concerted effort of the United States to carry out the policies adopted by the National Security Council. There may be other adequate solutions to our problems of security and defense, but the best solution will fail without enthusiastic support from all armed forces.

Instant and overwhelming retaliation is a policy which provides the basis for (1) a psychological offensive and (2) a military counteroffensive with celerity. It leaves the enemy in doubt

* *Modern Arms and Free Men*, New York: Simon & Schuster, 1949.

of our intentions and denies him the freedom to act with impunity. Naturally, the United States cannot announce precisely what form of retaliation it may launch, or for what precise aggression. To do so would weaken the psychological offensive, which is a bonus of the retaliation policy.

Because such a policy went unannounced in 1949, the enemy believed we would react supinely to a Korean aggression.* Today he has had an example of our celerity and, in addition, a statement of our will to continue to retaliate with celerity — with even more celerity, for next time we may select the place and the means. We may not merely push his hand off our knee.

* Dwight D. Eisenhower, Speech at San Francisco, October 9, 1952.

4. Doctrines After the Civil War

*The wisest thing, we suppose, that a man
can do for his land,
Is the work that lies under his nose,
with the tools that lie under his hand.*
RUDYARD KIPLING, *The King's Job*

IN explaining the new military policy of the United States to a group of correspondents, Secretary Dulles emphasized that instant and massive retaliation would not be chosen as the *only* means of response to aggression, but that a capacity to so respond was mandatory. "It is lack of that capacity," he observed, "which in my opinion accounted for such disasters as Pearl Harbor. If we had had the capacity to retaliate instantly, in my opinion there would have been no Pearl Harbor. But it took about four years to retaliate against Tokyo." *

No instant retaliation, of course, is possible through our movement of massed surface forces to stem the flow of an aggressive horde overrunning a free country. Instant retaliation must come through the speed possible by air and naval action. It need not necessarily be atomic in nature. Air power had reached a dominating position in strategy before the first atomic bomb was exploded. The drama of atomic developments has somehow beclouded the nature of air power. People tend to think of air

* *Time Magazine*, March 29, 1954, pp. 15-16.

power only in relation to atomic weapons. Yet air power is far more effective today in its purely nonatomic capacity than it was in World War II.

The fact that ground invasion of Germany was thought necessary in World War II is largely explained by the lag of military doctrine, by the failure to understand military capacity. The technological advances of our culture had not been completely integrated into the art of war, and the doctrines of air strategy were essentially untried. It was hence thought necessary to invade Europe to gain unconditional surrender. Postwar analyses, such as the exhaustive study made by the D'Olier Board,* have revealed some startling facts. Of the 2.7 million tons of bombs dropped by allied air forces on Europe, only 17 per cent were dropped before January 1944, and only 28 per cent were dropped before D day in June of 1944. The full scale of this air campaign was not reached until the end of 1944, and by that time rail traffic in Germany had taken a drastic downturn. Withering arteries of vital supply indicated that the internal structure of Germany was rapidly disintegrating. It is obvious that the physical capacity of the Allies to wage strategic air war had not matured until late 1944, by which time we were fully committed to a ground strategy. If we can believe the reports of former German generals† and industrialists such as Albert Speer,‡ Germany was doomed from the debilitating punishment of repeated air attacks.

This evidence in no way detracts from the achievement of the ground forces, who fought ably and vigorously to obtain the surrender of Germany. The evidence merely indicates that

* Franklin D'Olier, Chairman, *The United States Strategic Bombing Survey*, Washington: U.S. Government Printing Office, September 30, 1945. (Abbreviated henceforth as USSBS.)

† *Defeat*, a compilation of intelligence information published by the Office of Assistant Chief of Air Staff-2, Hq AAF, Washington, D.C., January 1946.

‡ USSBS.

if we knew then what we know now, this war could have been waged successfully by other means — means not then verified by experience. This is a fact we must face when considering the future. To close our eyes to the evidence of the present technical impact on war would make us victims of the error Admiral Mahan cautioned against. There must be, he warned, a candid recognition of each change caused by an improved weapon and consequent adaptation to the “qualities it possesses.” *

Technology has placed fearsome weapons in the hands of man today, and to ignore the overwhelming tendency of these weapons to change national strategy would be to ask for the defeat through ignorance which was prophesied by Jefferson. We must seize the essence of these weapons and adjust our strategy accordingly. This is a major premise of our current security policy. But in the application of principles of war, this does *not* mean nor does it imply that new weapons must be used with the utmost violence at every provocation. Air power is not an all-or-nothing force, by any means.

Air Power in Limited War

As early as 1921 air power was successfully used by the British in Iraq to quiet warlike tribes and to police the desert. This was done without killing and at minor cost compared to former efforts of ground forces to do the same job. Persuasion was exercised through the threat of bombardment. Warnings to villages to be evacuated before bombing was the principal technique. The same strategy was later employed in Arabia and with even greater economy.† Limited objectives were frequently achieved primarily by air power during World War II; the conquests of

* Mahan, *Influence of Sea Power upon History*, pp. 9, 10.

† Oliver Lyman Spaulding, *Ahriman: A Study in Air Bombardment*, Boston: World Peace Foundation, 1939, pp. 102–103.

Denmark, Norway, Crete, and Pantelleria serve as examples. And let us not forget Pearl Harbor.

Air power had its wings clipped by statecraft in the Korean War, and vocal opponents of this upstart to warfare were quick to point out its shortcomings without referring to, or possibly not even appreciating, the grave restrictions which had been applied to its use. Our government now appears determined that we shall not again so tie our hands. Sixteen United Nations powers have resolved that we shall henceforth not be bound by previous restrictions. “It has been stated,” said Dulles, “that if aggression should be resumed, the reaction would not necessarily be confined to Korea.” In other words, a “privileged sanctuary” for enemy air bases and supply dumps might not again be acceptable.*

But assertions that air-sea power cannot be employed in limited wars still go relatively unchallenged. Opponents of the new strategies talk of killing rabbits with elephant guns and of the indiscriminate loss of life and property caused by air methods, without appreciating that ground action also lays waste the territory where it occurs and causes comparable casualties among the noncombatants. Air power can be employed discriminately, but in order to facilitate this discrimination, any tactical and geographical restrictions made by statesmen should favor air strategy, not hinder it. Air operations can then be made as pointed and precise as a surgeon’s scalpel. There is no need to attack every trickle of supply through every village and hamlet if the reservoir of supplies is burst by bombing.

The concept of peripheral war has long been fundamental to naval strategy † and was the secret of British world domination until modern times when air power modified the purely naval

* *Time Magazine*, March 29, 1954.

† Captain John D. Hayes, USN, “Peripheral Strategy — Mahan’s Doctrine Today,” *U.S. Naval Institute Proceedings*, Vol. 29, No. 11, pp. 1186–1193.

aspect. This fundamental strategy is appropriate today with air-naval power, provided nations refrain from absolute atomic war.

Let us analyze how the Korean War might have been fought with an air and naval strategy. First, South Korea would have been overrun by the Communists. They would have had full possession of the territory. This "victory" might soon have turned sour indeed if Korea then had been sealed off from outside communications, with its industrial, power, and transportation capacity progressively destroyed by sustained air attack. A tight air and naval blockade might eventually have driven the nation back to medieval living conditions. No government could have endured such hardship. The people, North and South alike, would have forced their masters to sue for a cease fire. In time, famine, riot, and disorder would have resulted from such a quarantine. And in the end, it is decidedly open to question whether more people would have died than died under the conditions of invasion and occupation, where artillery zeroed on every forward village because it might be harboring enemy troops. Continental-style war in *South* Korea destroyed fifty-five cities and twelve hundred villages. Eight million were made homeless. One million were killed or captured. Ten million civilians were left destitute from this holocaust. These are figures from the South Korean Ambassador, Youchan Yang, speaking in Washington, February 1952.* Could air attack on strategic targets have been more harmful to the populace?

The lot of bypassed Truk in the war against Japan, bombed daily as a practice target, should illustrate what can happen to a small area controlled by aggressors. Sealed off and helpless, it withered on the vine. Pantelleria, subdued by bombardment alone just before the Sicilian invasion, provides another typical example. What meager evidence there is of this strategy leads

* Bonner Fellers, *Wings for Peace*, Chicago: Henry Regnery, 1953, p. 229.

us to believe that the aggressors in an area which could be punished by air-sea investment could eventually be induced to come to terms.

If such a war is to be limited in any case, it would seem reasonable to wait patiently for the enemy's demise through horizontal and vertical blockade rather than to rush in with surface forces for physical occupation. This is siege strategy accelerated by rapid attrition from air attack: a strategy as old as warfare and commonly practiced before abstractions of the Clausewitz philosophy began to grip mankind.

There is, of course, the problem of friendly elements within the area so harassed. Would they approve of such a quarantine and remain friendly under bombing? The conduct of the French who remained loyal to the Allied cause throughout the bombardment of their industry and transportation in the last war might lead to the conclusion that nationals in conflict with the aggressor government would welcome such a siege. True, they would suffer cruelly, but the prospect of eventually being free from the iron yoke of dictatorship might compensate somewhat. France was ravaged more by the shells of World War I than by the bombs of World War II. Moreover, there is something impersonal about bombardment. The horrors of rape and pillage are missing. And friendly peoples can usually be advised by radio and leaflet to abandon target areas. Bombing merely says: "When you have had enough, let us sit down together and talk terms." The natives of Truk, for example, bear us no ill will. Nor do the inhabitants of Pantelleria, where they signified their capitulation by flying a white flag from a mountain top.

Seversky and Liddell Hart

It seems entirely within the realm of possibility from the military standpoint to conduct a limited war essentially by the use

of air and naval action. If such a strategy were tested and validated (the testing would likely tax American patience to the limit), perhaps Alexander de Seversky's thesis* of all-out air power might be more acceptable. On the other hand, the doctrine expressed by many army leaders, and urged by the British military analyst Basil H. Liddell Hart,† of relying on more traditional ground forces has well-tested merit in dealing with a localized war. The progress of such a surface force is visible and hence more understandable. It is much easier to measure the areas of control on the ground than to judge the attitudes toward surrender that might exist in the minds of besieged government officials. But the logistical support of such a ground force is expensive, and strong air support for it is mandatory in any case. Why not try the air alone? This was the strategy planned originally for Korea. Three years of air and naval assault on Korea would surely have brought the aggressors to the conference table. Moreover, there would have been no purpose for the intervention of Chinese Communist ground armies.

Seversky warns against gearing the strategy of a total war to that kind of surface strategy employed in Korea. Should World War III materialize, he predicts a long and costly struggle if we succumb to the temptation of preparing surface forces for global conflict. He then sees no clear-cut victory for either belligerent. If a strategy of air-naval siege were developed for local wars, moreover, we would be in a stronger position to handle a total war should one be thrust upon us.

Will outmoded military doctrine bind us to tried and true but quite possibly shortsighted strategies? Is it necessary to put American soldiers on the ground in future wars when we

* *Air Power: Key to Survival*, New York: Simon & Schuster, 1950.

† *Defence of the West: Some Riddles of War and Peace*, London: Cassell, 1950.

have no wish to capture or hold territory? We are indeed faced by a dilemma that will soon demand a decision. It is not likely that we can afford to build up three forces to the stage of effectiveness each deems necessary. The national military policy, therefore, attempts to prevent this by integrating all military forces for a comprehensive and flexible strategy. The unacceptable alternative is to arm like Russia with the risk of being governed in a similar manner.

Liddell Hart argues forcefully against the policy of national conscription. Like Seversky, he feels that wars are won with quality troops and weapons rather than quantities. Liddell Hart has the notion that conscription merely undermines the effectiveness of regular soldiers by turning them into schoolteachers. He cites the numerical inferiority of the German forces during the 1940 French blitz as an example. With instantly ready, well-drilled, and highly mobile armored forces, Liddell Hart feels that a strategic decision can be reached over less skilled but numerically superior forces. Airborne armored forces of this sort will always be essential for base defense, for base capture, for raids to gain information, and for exploiting a strategic decision accomplished through rapid attrition from air-naval action. But rarely if ever would ground forces in the World War II pattern be needed for the principal strategic decision envisioned by Liddell Hart.

Although Seversky does not discuss conscription, he insists that quality should supersede quantity as a general policy in air war. To make this point, he refers to the Battle of Britain, in which a handful of British pilots in Spitfires defeated the far more numerous Luftwaffe flying inferior warplanes. Considering that we must now have an ever-ready force in being, and considering that it costs \$70,000 to train a jet pilot, there seems little place for short-term conscription in the future air force. The surge of technical science has made the task of war so pro-

foundly intricate that a genuinely professional corps has become mandatory.

Although Seversky and Liddell Hart are at opposite poles on the question of air versus surface strategy, they hold similar concepts of how wars are actually won. Not by killing, both agree, but by the dislocation of a nation's communications and internal structure through sudden, penetrating blows which leave the populace, and particularly the government and the national forces, in a state of abject confusion. The resulting chaos leads to demoralization and capitulation. Neither author accepts the Clausewitz doctrine of massed ground offensives against the center of enemy strength. Both wish to apply technology to the fullest, but Liddell Hart refuses to concede the accentuated air-power application.

Lessons of Defeat

A country that loses a war usually learns from its defeat, while the victor rests on his oars. The victorious country believes it has all the answers. Did not the doctrines lead to victory? And were not its heroes *sans peur et sans reproche*? But the defeated country, if it is allowed to keep a portion of its sovereignty, has little desire to engage in panegyrics. There just seems little reason to eulogize military men who have led to defeat and humiliation. Hence military decisions can be honestly analyzed and lessons learned. Foch noted this in reference to Germany after 1870 when he said that victory "prevented the Germans from perceiving the faults they had committed; subsequently, it caused them to persist in their errors." * Had Foch himself paid more attention to technology, Germany might have been stopped in World War I at considerably less cost.

* R. Recouly, *Marshal Foch, His Own Words on Many Subjects*, London, 1929; in Earle, *Makers of Modern Strategy*, p. 221.

If all plans and employments are conceived to be correct as the successful outcome indicates, not much can be learned. Moreover, if shining reputations might become slightly tarnished by questioning certain decisions, then it is politic to pursue learning in other fields. This is one reason why objective analytical studies are seldom made of our own modern wars.

Although France had been defeated by the Coalition in 1814 and 1815, she had humbled all Europe for almost two decades and hence was, in a military sense, the victor. Napoleon had not been beaten in combat so much as he had been worn down by his numerous enemies. Therefore, it might be reasoned that his wars were victorious, but fortune smote him down. This was the attitude held generally in European military thought, for Clausewitz, who despised Napoleon as an emperor, worshipped him as a genius and a "god of war." Not being a Frenchman, moreover, Clausewitz was able to examine minutely Napoleon's system and to perceive many lessons. Jomini, on the other hand, although egotistical enough to criticize even Napoleon, was personally identified with France. He thus was unable to grasp the total nature of the Napoleonic wars, contenting himself with the analysis of battles and maneuvers in geometric patterns.* Since he lived to the ripe old age of ninety-one (he died in 1867), writing voluminously all the while, he had plenty of opportunity to criticize the works of his dead rival, Clausewitz.

Because of the superficiality of his doctrine, Jomini contributed in some measure to the defeat at Sedan, where Moltke was operating on Clausewitz principles. Both Jomini and Clausewitz used the experience of Napoleonic wars to arrive at their generalizations, yet Clausewitz was able to probe deeper and gain

* Dallas D. Irvine, "The French Discovery of Clausewitz and Napoleon," *Military Affairs*, IV (1940), pp. 143-161.

more meaning than Jomini. So the disciples of Clausewitz decisively overthrew the disciples of Jomini in 1870. Although not recognized by the doctrine, the trend of technology had favored the doctrine of Clausewitz.

Vanquished France then began to learn what had caused its defeat, and France eventually adopted the German doctrine. Costly as this doctrine of mass offensive was in French blood, it proved effective when weighed by the final criterion of victory in World War I. Schlieffen was a successor of Moltke as Chief of the General Staff and the German version of the Clausewitz doctrine was in his charge.* It was Schlieffen who planned the massive right-end run through Belgium as the opening play of World War I, but he died before war came, urging his followers on his deathbed not to change the plan. His successor was another Moltke, nephew of the victor of 1870, and an officer apparently riding on his great name. Certain it was that the younger Moltke had not learned his lesson from Schlieffen. As the years passed, the Schlieffen right wing was gradually weakened. Moltke was going to be prudent, attempting to be strong everywhere in case the French or Russians attacked first. Thus when the advance was ordered in 1914, the power of the right wing had been so reduced as to prevent Kluck's encirclement of Paris, and he was stopped on the Marne by Gallieni. Quick victory had been within Germany's grasp; it was lost through military ignorance.

France, following another version of Clausewitz, attempted repeated massed counterattacks in the face of entrenched machine guns — a technical development that Clausewitz had not reckoned with. In fact, the great weakness of the Clausewitzian philosophy was to ignore almost completely the effect of technology on war. In his day, technology was barely apparent. The rash assaults of manpower by the Allies were inspired by the

French dictum to strike with mass at the most critical point, and to spurn the static defense. Although the first World War was a Pyrrhic victory for France, at least she won, and the doctrine of mass offensive on the battlefield was to some degree validated in terms of military victory. In terms of political consequences, something seemed missing, although few military analysts other than Liddell Hart proposed a revision of the doctrine.*

The pendulum swung again, with the loser learning more than the victor. Germany saw the ever-increasing impact of technology upon warfare after 1918, and in 1940 she crashed through and around the Maginot Line with Panzers and Stukas for a swift victory comparable to that of 1870, when the first Moltke had made a novel use of railroads and breechloaders. Fortunately, Britain and America had extended the technological influence on war still further in developing the strategic-bombing concept of the air. British and American bombers pounded the web and woof of the German industrial fabric far behind the engaging armies. The enemy war-making capacity collapsed. Armed forces could no longer be supplied. Germany went down to a second defeat.

The present finds two victorious ex-allies threatening one another, and the relationship of defeat to military learning cannot apply unless one considers that Russia, who was overthrown in many battles, would be more driven to military study than America, who suffered few defeats. The marked emphasis now placed upon military education in Russia would support this hypothesis. It is only hoped that Russian doctrine, which is grist for the military-education mill, is not as advanced nor as clearly developed as the doctrine in America. Some evidence indicates this to be so, for with all her frantic efforts at technical improvement, Russia still gears much of her equipment to the World

* Liddell Hart, *Foch: Man of Orleans*, p. 85.

* *Foch: Man of Orleans, passim.*

War I version of Clausewitz — massed infantry.* Yet her growing interest and capacity in the air is frightening.

Unless we take full advantage of our technical capacity, however, and apply it with courage to our knowledge of war, the next war may find us unprepared. The great marshals of France fervently urged the construction of the Maginot Line. Had not prepared defensive positions become well nigh impregnable in World War I? Were such fortifications not tried and tested? Yet mobile armor pierced the Maginot Line built by the traditionalists. Armor that was outnumbered in manpower dominated the situation. General Pershing headed a board to still the revolutionary thunder of Billy Mitchell and to proclaim that Mitchell's tests of air attack on battleships were inconclusive. Pearl Harbor was what Mitchell had been trying to avoid. And a Japanese air group sent the *Repulse* and *Prince of Wales* to the bottom of the China Sea. Technical developments had not been adequately applied to the art of war by the former victors. Planning was geared to the strategy of the first war, not the second.

John McAllister Schofield

Opinions and assurances from combat leaders cannot be relied upon for all the answers to military questions. National defense is a *national* problem. Combat forces are voted into being by the people's Congress. The general strategy we follow in any conflict must be acceptable to the electorate. So everyone, since he is to have a part in military strategy, should understand war. This was a belief firmly held by John McAllister Schofield,† who did much lecturing on the subject.

Although he rejected the idea that military scholarship was

* R. L. Garthoff, *Soviet Military Doctrine*, Santa Monica, Cal.: The Rand Corporation, 1953.

† *Forty-Six Years in the Army*, New York: The Century Co., 1897.

essential to high military command, Schofield believed as Plato did that military education was mandatory for all the citizens of a democracy, and especially so for statesmen. In saying that scholars were failures as commanders, Schofield was likely influenced by the criticism leveled at General Halleck because of his failure to win the war for the North in 1863.

Henry Wagner Halleck was noted before the war for his military scholarship. Six years after graduating from West Point in 1839, Halleck was sent to Europe for military research and in 1846 published *Elements of Military Art and Science*,* a later edition of which was used widely during the Civil War. This work no doubt caused Halleck to be considered a military scholar, although Schofield himself could be given the label with more justification.

Schofield, when two years out of the military academy, was returned there to instruct for five years as assistant to Dennis Hart Mahan in the Department of Natural Philosophy, which corresponds to physics and engineering today. In the interim between graduation and his teaching assignment, however, Schofield had been affiliated with a university in Chicago, and after leaving Dennis Hart Mahan at the military academy, he became professor of physics at Washington University, St. Louis, until the war broke out between the states. Then he was assigned as a major on General Nathaniel Lyon's staff, rising to Chief of Staff by 1864. Schofield, a brigadier general at thirty-three, was given his first combat command under Sherman for the Atlanta campaign. His most active part in this campaign was a fierce drawn battle with General John Bell Hood at Franklin. Perhaps it was this experience, knowing himself to be a scholar, that caused him to depreciate the scholar as a great commander. Yet Halleck had the reputation of scholarship, and historians often contrast Halleck's failure with Grant's success.

* New York: Appleton & Co., 1846.

General Sherman knew Halleck intimately. Halleck was one class ahead of Sherman at West Point, and they served together as young officers in remote California during the Mexican War. There they experienced the turmoil of civil revolution and the gold rush. As to Halleck's ability as a commander, Sherman had nothing but praise. He gave Halleck full credit for the strategic decision to attack Forts Henry and Donelson, which Grant so well executed and which Sherman said had such "extremely rich military results; indeed, it was the first real success of our side in the civil war." *

Sherman himself, incidentally, had a scholarly background; he organized and became the first president of a military college in Louisiana which was the predecessor of Louisiana State University. It was his love of the South and his disgust with Northern policies leading to war that caused some correspondents to call him "crazy." And this was the man who later personified Southern hatred.

Later, when Halleck had an opportunity to solve the whole Mississippi problem as he sat in Corinth, Sherman blamed the administration in Washington for scattering his army of one hundred thousand in piecemeal enterprises throughout the West.† Then when Halleck was ordered to Washington as nominal Commander in Chief, he assumed a position without authority, since Lincoln and Stanton were still playing at military strategy and making major tactical decisions. Custom, moreover, as developed through the unhappy regime of Winfield Scott, had shorn the senior army post of its authority. This condition generally prevailed until Elihu Root and Tasker H. Bliss achieved some unity of army command just after the turn of the century. Halleck, it can be assumed, was a victim of circumstance, like Scott, and thus lost his historical glamour.

* Sherman's *Memoirs*, p. 248.

† *Memoirs*, p. 282.

Schofield, sixteen years younger than Halleck and ten years junior to Sherman, although not recognized as one of the great captains of the conflict, became a leader of military thought in the army. In spite of his feeling that scholars made poor commanders, he thumped for military education at every opportunity and succeeded in getting schools started for the study of war. As an understudy of Dennis Hart Mahan he carried on the doctrine of Jomini. But under Schofield's guidance this doctrine began to lean toward the concept of war as a political instrument even before Clausewitz was known in this country. This broader concept of war came about through serving under Sherman, who understood the value of (1) avoiding Hood's army and (2) breaking loose from lines of communications in order to split the Confederacy in the Atlanta campaign. Both Sherman decisions were rank heresy to the Jomini doctrine. When the war ended, Schofield had another unusual experience in the broad view of war.

In Mexico City the Archduke Maximilian sat on a throne. Defying the Monroe Doctrine, France under Napoleon III had taken advantage of our preoccupation with civil war. General Bazaine with thirty thousand French bayonets provided the power that held Maximilian in place. At the completion of hostilities, we were determined to oust the French aggressors and return Mexico to its native government represented by the fugitive Juarez. Thousands of American ex-soldiers were on the loose, North and South having been demobilized with the haste which has been our custom. And unlimited surplus equipment was available. Schofield, on inactive status, was selected to raise and lead a volunteer army of liberation. It was to be a war by proxy conducted by a Flying Tiger kind of outfit.

Before embarking on such a risky venture, Schofield wanted to make a last try at swinging the task diplomatically. So he was commissioned by President Andrew Johnson to go to France

on a leave status and to "get his legs under the mahogany" with Napoleon. Off he went, and although he never talked directly with Napoleon, Schofield was able to convince the French ministers that Maximilian's destiny had run its course. When they clearly realized our intentions, the French were willing to recall Bazaine, but Napoleon wished to avoid losing face for his regime. Schofield suggested that Napoleon announce that his Mexican expedition had achieved its purpose. An imperial edict to this effect soon followed. Bazaine was recalled, Maximilian executed, and the Republic of Mexico restored under Juarez.

In truth, a war was won without fighting. Political aims were achieved through the threat of a war that held no promise for France. Moreover, this proxy arrangement left the United States free to pursue many diplomatic opportunities with celerity.

After winning this diplomatic war with France, Schofield became a pinch hitter when the President was looking for a Secretary of War to replace the treacherous Stanton. This put Schofield in the middle of a political row which culminated in President Johnson's impeachment and acquittal by the Senate. Stanton had maneuvered a law through Congress, the Tenure of Office Act, which prohibited the President from relieving his own cabinet officers without Senate consent. Both Grant, then the Commanding General, and Sherman, the next senior officer in the army, declined to accept the Secretary of War post proffered by the President. Schofield served, however, from June 1868 until Grant's election in March 1869. This experience added to Schofield's breadth of vision and no doubt contributed to his intense feeling that:

No man can qualify for the duties of a statesman until he has made a thorough study of the science of war in its broadest sense. He need not go to military school, much less serve in the army or in the militia. But unless he makes himself thoroughly acquainted with the methods and conditions

requisite to success in war he is liable to do almost infinite damage to his country.*

Schofield said this was the second most important lesson of the Civil War. The first lesson was that statesmen should use the military intelligence available to them, as the South did and the North delayed in doing. To illustrate how military illiteracy in statecraft led to expensive mistakes, Schofield noted that after the victories of Fort Henry and Donelson, thanksgiving was proclaimed and orders issued to stop recruiting. This enthusiasm should instead have been used to spur the Union armies on to complete and rapid victory.

It can well be said that Schofield's first lesson has now been learned. Our nation makes full use of its professional military men. However, secondary and higher educational institutions assiduously avoid the study of war. Some few institutions such as Virginia Military Institute and the University of Maryland make the effort, but they seldom get beyond the bare fundamentals of the subject. ROTC makes some progress in this field, but ROTC is a form of government subsidy, and the military subjects thus taught are rarely integrated into the general curricula of the schools.† Few students are allowed to graduate from high schools without having learned mathematics, English literature, history, physical science, and civics. Yet the art and science which gained our sovereignty and will do most for keeping it secure is not regarded as a fitting subject of study for the general student.

General Schofield was appointed Superintendent of West Point in 1876 and continued to hammer on the theme of military education until he induced the establishment of the School of Application for Cavalry and Infantry at Fort Leavenworth, Kan-

* *Forty-Six Years in the Army*, p. 516.

† See Harold Willis Dodds, "Your Boy and the ROTC," *Atlantic Monthly*, March 1953, Vol. 191, pp. 25-29.

sas. This was the first formal school in America to tackle the higher arts of war. Schofield ended his career in 1895 when he retired from that anomalous position, Commander in Chief of the army. Tradition had not been overcome and the division of authority with the Secretary of War had left the senior army general with little to do.

Elihu Root and the General Staff

This condition was harshly brought to light when the Spanish-American War broke out. Throughout our history, quasi-autonomous army bureaus had been established by law, and the bureaus were headed by permanently ensconced generals who reported directly to the Secretary of War. These bureaus included the adjutant general, inspector general, judge advocate, quartermaster, subsistence, medical, pay, and ordnance departments, not to mention the engineer, signal, and coast artillery corps. As a rule the Secretary of War had knowledge neither of strategy nor of military organization, and he seldom stayed in office long enough to acquire skill in military administration. Hence the separate bureaus took on an autonomous nature, being run to suit themselves. The logistical chaos that resulted in executing military decisions (there were hardly any coordinated plans) caused a number of postwar scandals.* Elihu Root, a lawyer who had been in the midst of investigations of subsistence mismanagement, sanitary failures at various camps, and transportation inefficiencies at Tampa, was appointed Secretary of War in 1899. He was determined to correct the cumbersome system and to create a staff which would provide unity of command. But he admittedly knew little of military problems. Where was he to learn?

While studying military matters, Elihu Root heard of an Ox-

* J. D. Hittle, *The Military Staff*, Harrisburg, Pa.: The Military Service Publishing Company, 1949, p. 175.

ford professor who had specialized in the scholarly pursuit of military art and science. Spenser Wilkinson had devoted his life to discovering what war is and what it means. His book, *The Brain of an Army*,* became a companion piece to Upton's *Military Policy of the United States* as a guide to reforms in our military policy and legislation.

Although not a practitioner of military art, Spenser Wilkinson developed a knowledge and philosophy of war that had the full respect of generals. Through his profound knowledge of military history, he was able to abstract doctrines which military men believed but had neither the skill nor the time to put down in public writing. *The Brain of an Army* was published in 1890 and later became a text in the United States Naval War College, which had been established a few years after Leavenworth was opened as an army school. When President McKinley sent General Ludlow to Europe at the behest of Elihu Root to study the Prussian General Staff, it was through Ludlow's conversations with Wilkinson that Root obtained a copy of *The Brain of an Army*. It contained comments in the margins by both Prussian and American generals.†

A conversation related by Wilkinson is noteworthy when considering the relationship between military doctrine and national policy. General Ludlow asked Wilkinson, "Why do you not try to awaken your countrymen to a sense of military realities?"

"I have been doing nothing else all my life," replied Wilkinson, "but it is no easy matter to interest the people in a democratic government in a matter that has no apparent bearing on their domestic policies. You too who live in a democratic country might appreciate that condition."‡

* New York: The Macmillan Co., 1890.

† J. M. Scammell, "Spenser Wilkinson and the Defense of Britain," *Military Affairs*, 1940, Vol. 4, pp. 129-142.

‡ Spenser Wilkinson, *Thirty-Five Years*, London: Constable & Co., 1933, in Scammell, "Spenser Wilkinson."

In 1903 Elihu Root met and talked with Wilkinson in London. Writing to Wilkinson in 1919, Root said, in part:

... Plainly, it would have been impossible both for England and for America to play the roles they have in saving us from German domination but for the existence of the General Staffs whose business it was to think and plan and secure information.

I do not forget, although I daresay a great many people do, what a great part your little book "The Brain of an Army" played in bringing it to pass that both countries had some sort of an institution of that kind already in existence when the sudden emergency came.*

Here was one of the few examples in our past when a military doctrine, that of the general-staff system, was articulated clearly in a book, adopted as policy by the civil leaders of our government, passed into law, and made a reality in the military establishment.

There were vociferous objections to the general-staff principle following World War I, because it was written into the Treaty of Versailles that war guilt rested with the German General Staff. This superficial analysis of war cause is typical of those who make no systematic study of war. Knowing little about the subject they can quickly dispose of it by agreeing that such and such a cause, like "pernicious militarism," or "imperialism," or "the German General Staff," was responsible for the whole unpleasant business.

Tasker H. Bliss

The military representatives of the Supreme War Council, which operated as the Allied head during World War I, were not asked for their views on war cause or war guilt. General Tasker

* Wilkinson, *Thirty-Five Years*, in Scammell.

H. Bliss, a profound student of war who had sat on the council from its inception and who had dealt intimately with Lloyd George, General Haig, Clemenceau, General Foch, General Pershing, *et al.*, was virtually ignored during the long peace deliberations. The country had not followed Schofield's advice. Statesmen had taken charge who had meager understanding of war and the final product of the peace talks was a treaty which contributed heavily to the outbreak of almost the same war twenty years later. This outcome was clearly predicted by General Bliss.*

Wilkinson's general-staff doctrine was sound, as later events proved conclusively. The advance of technology with its vastly augmented transportation and communications, with its great increase of weapons both in quantity and types, and with the concomitant social advances in business processes and techniques had all combined to complicate enormously the waging of war. Only an organizational system like the general staff could prevent logistical fiascos such as were experienced in the Spanish War. All the manifold activities of war had to be articulated by a general staff. Plans and operations needed coordination by a chief of staff who acted as assistant to the Commander in Chief, the President. Purposeful and methodical planning became possible, with all elements of war integrated in this "brain of an army." Action was then timed as planned, with all arms and services meshing into the unified activity in proper sequence. And the commander had time to think of strategy, look at the overall picture, evaluate intelligence of his enemy, and deal personally with his subordinates and superiors. He was not, as formerly, so enmeshed and confused with masses of detail that he could not see the forest for the trees.

Bliss, who had so much to do with reducing the general-staff

* Frederick Palmer, *Bliss, Peacemaker — The Life and Letters of Tasker H. Bliss*, New York: Dodd, Mead & Co., 1934, pp. 386-379.

law to a working system, was both Assistant Chief of Staff and Chief of Staff at the opening of World War I. Before that war he had made an analysis of the paper work handled in the War Department. Four thousand papers were leaving the Adjutant General's office every day.

Suppose that he gave an average of one minute to each paper. Suppose that he were to close the door of his office, deny access to anyone except to his officers bringing him papers and that he sat at his desk for eight consecutive hours each day in the year. Suppose all that — yet he could scrutinize only 480 papers a day out of more than 4000. And then he would know nothing about the 480.

In the office of the Chief of Staff there are approximately about [sic] 175 papers (before our actual entry into the war) to be handled each day, including those which may have to pass to and from the desk of the Chief of Staff two or three or more times.

If the Chief of Staff were to lock his door and sit at his desk for three consecutive hours, he could give only one minute, on an average, to each of the 175 papers. Many of them require many minutes, some of them hours, for reasonable consideration. It would require him to sit at his desk eight consecutive hours and forty-five minutes, seeing no one except the person bringing him papers, to give an average of three minutes to each paper.

In such a case the head of any big business must be guided by the judgment of others. If not, sooner or later, he must himself study the details of each question, which is a physical impossibility.*

And so it was this businesslike system of delegating authority in the general staff which created efficiency. Without the general staff, military organization could not keep up with the tempo of modern life. The ever-increasing onrush of technology forced teamwork into military planning. Only through a unified staff

* Frederick Palmer, *Bliss, Peacemaker*, p. 130.

could modern weapons and equipment be fully utilized in the fantastically large machine of war.*

Other Doctrines of Spenser Wilkinson

Other doctrines of war enunciated by Wilkinson are worth mentioning. His views were similar to those of Clausewitz, whom Wilkinson religiously studied. Of most importance, however, is Wilkinson's statement of the object of war: not victory necessarily, or conquest, or unconditional surrender — the usual maxims — but "peace upon acceptable terms." It is the duty of a nation, he believed, to know just what those terms might be at any given time. He probably would have looked upon Korea as a war which met his definition after the United Nations' terms had been announced, but he would have objected to the delay in deciding on the specific objectives.

His remarks on avoiding war were prophetic, for they apply to our present national policy. The surest way to forestall war, he maintained, is to stand ready to accept boldly the challenge of war when vital interests are at stake, and to be willing to compromise on matters which do not affect the essential welfare of all citizens.

On morality of war he made a pungent observation. Whether a war is moral or immoral is learned in the course of time by examining the nation's own self-respect. Very likely neither the War of 1812 nor the Spanish-American War could stand that test prescribed by Wilkinson. We can scarcely regard those two wars as honorably conducted, and the aims were vague indeed. Nor were they objects of national pride, even though they consolidated and impelled our national growth. True success in war, Wilkinson warned, lies in the moral fiber of a nation and the *ethics* of its government. He refers here to both material and

* See Introduction for Root's remarks.

moral success. Napoleon's doctrine that all operations should be undertaken to heighten the glory of one's arms and Clausewitz's doctrine that favorable public opinion should always be sought are both noted in Wilkinson's concept of ethical success.

Wilkinson, however, was an advocate of total war. He maintained that from the start the whole resources of the nation must be brought to bear: moral and physical, material and human. In this way war can be made short, decisive, and hence more humane and less costly. Schofield, too, stated that when total war is necessary, maximum national effort to make victory sharply decisive is the surest policy for success. This was the Clausewitz gospel of violence now seeping into our military philosophy.

It is the duty of a state, Wilkinson maintained, never to be surprised by war, for then it is already half defeated. Pearl Harbor attests to this, for it ushered in the only major defeats we suffered in World War II. The answer to this doctrine, of course, is effective intelligence. In 1947, for the first time in our history, the United States assumed this obligation by establishing the Central Intelligence Agency.

Fulfilling these doctrines is not solely the duty of soldiers, Wilkinson cautioned, but equally the duty of the people and their governments. Aims and objectives are in the province of statesmen. Conduct of war itself is the soldier's sphere of responsibility. Policy is the master and strategy the servant. Although true in theory, one can see that this philosophy perpetuated the civil-military dichotomy which has fostered ignorance of politics by soldiers and ignorance of war by politicians. These areas of ignorance may have much to do with the inability of many civilians and military alike to grasp the significance of atomic air power in the world today.

"The military commander's aim," Wilkinson wrote, "is to crush the main armed forces of the enemy and *otherwise paralyze his will or ability to resist.*" (Italics added.) Destruction of the op-

posing armed forces has, since Napoleon's time, been a central military doctrine screening all others. Wilkinson was one of the first to recognize, even obliquely, the Clausewitz qualifier that war might be successfully concluded by paralyzing the enemy's "will or ability to resist." In absolute war, modern atomic air power shifts the center of gravity from opposing armed forces to the jugular vein of the enemy industrial structure which can collapse his will or ability to resist. Unless supplied from without, as with Korea, the sinews of war in a modern state are really contained in a few hundred square miles of industrial area. Air power can take out this area quickly and totally deprive that state of the means to wage war.

Spenser Wilkinson repeated the principles of war that had gradually gained military credence during the nineteenth century: concentration, objective, maneuverability, and so forth. But his remark that the secret of success lies in maintaining harmony between policy and strategy is the central theme of this book. To assure harmony, he advised, statesmen and military commanders must recognize things as they really are, not as they would like them to be. Above all, they must understand war.

The study of war must be covered by a respectable curriculum in schools and colleges, Wilkinson believed. Learning could not find itself in a healthy state if it did not embrace the phenomenon of war which consumes so much of the time, energy, and wealth of individuals and governments. Any study of government which omits a thorough coverage of war is like a study of the ship which takes no account of the sea.

Toward the end of his life, Wilkinson wrote:

It is going to be hard to induce people to believe in military history because, to most people, there seems to be such a complete cut between the methods of the Nineteenth Century and those of the Twentieth. But I think there are

permanent elements, those which are not material but human.

Moreover, war is always an affair of the State and part of the changes in war are changes in the Constitution of the State.

There never were and never will be recipes for victory.

A clear head and a strong will can make the most of the resources available. Discipline will always be a source of strength, and courage raised to the highest power by good leadership will always work miracles.*

Wilkinson did not live to evaluate World War II, but he could see it coming and he deplored the habits which were forcing us ahead unseeing, with policy and strategy in discord. Time bought by appeasing Nazi Germany was not used adequately to strengthen Allied might. No strategy to stop Germany was conceived at the policy level.

Unity of Command

To the scholarship of Wilkinson, a civilian professor at Oxford, and of Upton, a professional soldier, can be traced the doctrines which made army unity of command workable in our complex, mechanized society.† The general-staff system provided a coordinating body of planners to study and administer, with the Chief of Staff in full authority. Elihu Root nearly failed in getting this reform enacted into law, however, for he was bitterly opposed by the then Commander in Chief of the army, Lieutenant General Nelson A. Miles, hero of the Spanish-American War. It is likely that Miles saw only the loss of his exalted but meaningless title rather than the absolute need of organizational change.‡

* J. M. Scammell, "Spenser Wilkinson."

† Some help also must be attributed to Major von Schellendorff in Germany. Bronsart von Schellendorff, *The Duties of the General Staff*, London: His Majesty's Stationery Store, 1905.

‡ Hittle, *Military Staff*, p. 178.

The scales were tipped when the venerable Schofield was recalled from retirement to testify. The old general threw his weight solidly behind the Root measure and the bill was passed in 1903.

Schofield's old commander, General Sherman, had been chairman of a board in 1867 charged with correcting the chaotic system of military administration. The board's recommendation, if adopted, would have clarified the system of command forty years earlier, and we would have been spared the indignities and waste which occurred in the conduct of the Spanish-American War. Caught in the maelstrom of political wrangling caused by Secretary of War Stanton's machinations, the Sherman Board's recommendation was forgotten.*

The importance of weapons and supplies, however, was not recognized in the general-staff organization that appeared after 1903. Three divisions were established: Operations, Information, and Education. Logistics and weapons were subordinated to Operations, while all planning was under the Education division of which the newly established War College was the principal part. Not until World War I was it felt proper to form a G-4 division charged with matériel and supply. This was adopted by the AEF from the French. Centuries before, Richelieu had divided his staff three ways: the *Maréchal de Bataille* (Operations), *Intendant* (Administration), and *Maréchal de Logis* (Supply). The press of technology was indeed slow to be felt in the American military establishment.†

Technology and Strategy

New weapons and machines have always had a prominent effect on war from that day in misty antiquity when man sharp-

* Hittle, *Military Staff*, p. 173.

† Hittle, *Military Staff*, p. 183.

ened a stick and found it had certain lethal advantages over a club. Usually the changes were evolutionary, and strategy based on principles was only slightly affected. Few people recognized that Admiral Dewey's dramatic victory in Manila Bay was due to the fact that his eight-inch guns outranged the guns of the Spanish Fleet. Dewey took full advantage of this technical edge without losing a man.*

Because of the almost unnoticeable technical influence on strategic principles, these principles have been considered changeless. Yet with an ever-accelerating technical growth the emphasis placed on certain principles of war has varied remarkably. Mass in terms of vast numbers of men, for example, reduced the possibilities of maneuverability, economy, simplicity, and surprise. This altered emphasis changed the whole complexion of strategy, the whole art of war. Technology made possible large concentrations of manpower and equipment. Now, in the last two decades, technology has taken such an unexpected spurt that it is again time to evaluate carefully the emphasis placed on certain principles and to fit them to present conditions. As Winston Churchill said in *Marlborough*, success is dependent on "an absolutely new comprehension of the dominant facts of the situation at the time all the forces are at work. . . . There is no surer road to disaster than to imitate the plans of bygone heroes and to fit them to novel situations."†

Military forces have repeatedly gone down to disaster because of an obsessive faith in past tactics, and Americans have several times come close to disaster for this very reason. In the first World War submarines were overcome by convoys. Merchant ships were herded together and protected by rings of fast naval

* J. F. C. Fuller, *Armament and History*, New York: Charles Scribner's Sons, 1945.

† In Field Marshal Montgomery, *Military Leadership*, London: Oxford University Press, 1946, p. 10.

vessels. This tactic was relied upon by the Allies in the second World War, but the method failed. Twenty-one years of technical progress had made an entirely new weapon of the submarine, and in packs it could break up convoys. Moreover, it could cruise so far and stay at sea so long that it could, as a purely strategic weapon, concentrate on shipping of raw materials. There could never be enough naval vessels to convoy all shipping. Soon in World War II so much tonnage was sunk on the East Coast and in the Caribbean that war production in America was seriously threatened. Land-based air power, ten times as effective in search rate as naval vessels,* was thrown into the crucial breach as an improvised remedy. Soon airborne radar extended the effectiveness of air search and by the summer of 1943 the critical period had passed. Enemy submarine losses outnumbered the losses of merchantmen. But it was such a close call that the scientific resources of the nation were mobilized to combat the submarine menace. Admiral Karl Doenitz came very near to realizing his boast that he would win the war for Germany with submarines alone.

Since the second World War, armed services have integrated research and development into their general staffs. The unprecedented role of technology in modern war is gaining its rightful place.

During the time of Frederick the Great, Germany established the first scientific academies, the forerunners of modern universities, and the German people have ever since been progressive in technical research and development. Goebbels remarked in his diary: "It is essential that we be ahead of everybody, for whoever introduces a revolutionary novelty into this war has the greater chance of winning it." The novelties of guided missiles

* James P. Baxter, III, *Scientists Against Time*, Boston: Little, Brown & Co., 1946, p. 32.

and jet aircraft were introduced, yet Germany lost because these novelties were not accurately applied to the art of war. Decisions on their application were made by Hitler and other Nazi leaders who had but an elementary understanding of war. Consequently German strategy became unhinged, objectives confused.*

When in 397 B.C. Archimedes' inventions confounded the invaders of Syracuse, military men began to recognize the machine as a partner of the soldier. War and the machine have ever been mutually stimulating.† Machines have been developed for war, as in the case of the atomic bomb, and war has been adapted to machines which were designed for other purposes, such as steam and gasoline engines. In view of the prodigious growth of machines for all purposes in our time, the adaptation of them for war requires the highest kind of learning in two arts — technical science and military science. Without such learning, we may erroneously apply machines in war to our disadvantage, as did Germany with her missiles. A purely technical lead over the enemy does not assure victory. Victory can be expected, however, when technology is well applied to war.

People who look upon atomic bombs as the end-all of war cannot have much military insight. A bomb, or an artillery shell, is relatively ineffective and harmless unless it is delivered accurately at a certain time in accordance with a sound strategic plan. No quantities of bombs, whether TNT, RDX, atomic, or hydrogen, have significance unless married to their delivery vehicle with the vehicle in turn married to a disciplined military organization intelligently directed under a sound war plan. The all-encompassing problem of war must ever be considered when evaluating any new device.

* Eugene M. Emme, *Hitler's Blitzbomber*, Documentary Research Division, Research Studies Institute, Air University, Maxwell AFB, Ala., December 1951.

† Lewis Mumford, *Technics of Civilization*, New York: Harcourt, Brace & Co., 1934, p. 87.

It can be said with assurance that modern civilization has forced us to recognize a tenth principle of war,* which is this:

Technological change has a significant influence on the art of war, and the military power which first learns how to exploit new devices will have greater chance for success in war.

Airplanes and nuclear bombs are real weapons in our arsenal. "For good or ill air mastery is today's supreme expression of military power, and fleets and armies, however necessary, must accept a subordinate rank. This is a memorable milestone in the march of men." So spoke Winston Churchill in his Boston speech of 1949. We must learn how to take advantage of these weapons in all kinds of war, large or small, or still better, cold. For the best way to win a war is the way Schofield did — without fighting.

* See Chapter 2 for list of nine principles.

5. The Beginnings of Air Doctrine

*It was not in the open fight
We threw away the sword,
But in the lonely watching
In the darkness by the ford.*
RUDYARD KIPLING,
The Rout of the White Hussars

It is repeatedly asserted that the principles of war are unaffected by technological advance because of the constant feature of the human element, which, of course, is the crux of war. War is fought between people, not machines. Machines are merely tools for the people and in war the will of the people must be overcome, even to the point of death if need be. Yet when people become so dependent on their machines as to lose courage with their destruction, then machines can be a remunerative target.

The armored knight's horse, lance, and sword were his tools of war. After several clashes one adversary was unhorsed, his lance usually lost or broken. He then continued the fight on foot with a sword. If he lost his sword, he would either surrender to the mercy of his victor or flee. Thus his will was overcome by the loss of his tools of war. He had so much confidence in the tools that he believed all was lost if he were disarmed. Similarly, when the gunman lost his pistol and could not escape, he raised his hands to the law. A nation cannot escape. When

Japan's tools of war, ships and aircraft, were destroyed, she sued for peace. As the commander of the Japanese Army Air Force, General Kawabe, simply stated, "Our loss in the air lost us the war." * Thus, machines of war are essential to victory. Those nations which possess and exploit superior tools of war, or machines, therefore have a distinct advantage. Perhaps misunderstanding on this score has resulted partly because this truism has not been expressed specifically as a principle of war.

The Exaggeration of Numbers

In recent discussions a false analogy has been presented concerning the efficacy of machines versus men in war. This confuses thinking by entangling logic with one's emotional regard for the infantryman. Machines certainly do not deny him his rightful dignity as a fighting man. Similar attacks were made on machines during the industrial revolution. Machines were doing the work of many people and causing unemployment. It is on record that bands of unemployed, in anthropomorphic rage, actually invaded factories and destroyed unfeeling machines as the villains that had caused their destitution. It was, of course, a vain effort to turn back the clock. Human progress cannot be checked for long. It is an established fact that in industry machines have led to vast production with relatively little human labor. One man does the work of many when assisted by a machine.

The same conditions prevail today in warfare. Masses of men are not necessary to achieve massed firepower. In a little over five minutes, for example, the Allied strategic air force caused fifty-five thousand German casualties at St. Lo. The massive firepower from the skies over Europe was crushing the life out

* James Straubel, *Air Force Diary*, New York: Simon & Schuster, 1947, p. 405.

of Germany. Ex-President Herbert Hoover's postwar report indicated that Germany would soon have collapsed from within without a Normandy invasion.* One man, with one machine, can now project the firepower of hundreds of thousands of hand weapons firing for years, even centuries. This new concept of mass — massed firepower instead of massed bodies with hand weapons — dramatically illustrates the technological influence on principles of war.

President Eisenhower clearly recognized this revolutionary change in the art of war when he said: "The usefulness of these new weapons creates new relationships between men and materials. These new relationships permit economies in the use of men as we build forces suited to our situation in the world today." † Unless Americans can recognize these new relationships before an enemy does, we will soon be disarmed. For peoples of the world are fast realizing that, in the event of war, either annihilation or surrender faces the side with a second-best air force.

Our greatness as a nation can be largely attributed to our ingenuity in learning the relationships of men to machines in our peaceful pursuits. We have adjusted our working and living habits to exploit the hidden helpers in technology. Sometimes adjustment has been painful, but the total result has increased the general welfare. Will our military thinking fail to make these painful adjustments and cling to the questionable neo-Clausewitz doctrine of massed land troops until we lose our sovereignty? Will we stubbornly hold to archaic relationships through the uncritical worship of nineteenth-century platitudes on the art of war? Will we, like the lemmings that migrate yearly to a place long sunk beneath the sea, commit mass suicide rather than change our habit patterns?

* Fellers, *Wings for Peace*, p. 143.

† State of the Union message, January 17, 1954.

Opponents of the air-power theory will insist that they too believe in applying technology to warfare. Is not the atomic gun an example? But the marriage of atomic projectiles to a gun is the application of a new force to an old device. It would have been as reasonable after gunpowder had been invented to project explosive cannon balls from catapults. It is the same kind of thinking that put an arrow in the first cannon and a gasoline engine in a buggy. This sort of application of technical knowledge confines it to the precise limits of the land battlefield in strict conformance to the narrow concept of war that existed before the gasoline engine, the airplane, and atomic power were invented.

Unquestionably, land forces will be essential to war as long as man walks on the surface of the earth, and the quality of land weapons will always remain a significant factor for success in surface warfare. But to regard war as a two-dimensional physical conflict and to adapt weapons to those two dimensions in disregard of the revolutionary third dimension of our age seems to be somewhat anachronistic. Habits of thinking about war as a surface struggle between masses of men are rooted in the history of mankind, while the age of technology is a mere bud on the great tree of human existence.

The awe of bigness, which causes us no little concern in considering the strength of the Communist hegemony, is a by-product of the neo-Clausewitz doctrine. If masses of armed men take on such significance, it is little wonder that we count and recount the impressive numbers of divisions mobilized on the other side.

We should not be awed by the bigness of an enemy. Bigness in warfare has not correlated with victory as have superior tactics and strategy which integrate superior weapons. David's victory over Goliath, with a ridiculous sling and stone as opposed to the giant's full panoply of battle, presents a vivid ex-

ample. But more historically, Xenophon's ten thousand Greeks were surprised to learn they could hold off the whole Persian Empire. Alexander soon profited by this knowledge. He did not conquer with hordes but with Xenophon's phalanx linked to a novel use of cavalry, an entirely new order of battle. The crushing defeat of Persia by little Athens with sea power was another David-versus-Goliath epic. Themistocles' decision to rely primarily on sea power saved Western civilization. Hannibal humbled Rome with a handful of men. Genghis Khan's use of swift mounted archers left him in no fear of numbers. The highly disciplined Janizary Corps, a small body of professionals, kept the Ottoman Turks in control of the Middle East for four centuries. The defeat of the Spanish Armada and Nelson's victory at Trafalgar provide more evidence that superior military art will ever overcome superior numbers. The longbowmen at Agincourt were the nemesis of the cataphract—a military form which had endured for more than a thousand years.* In 1898 the Spanish had two hundred thousand troops in Cuba which were overcome with approximately one tenth as many Americans. The entire sweep of history proves this point uncontestedly: numbers provide no sure prediction of success. Yet the neo-Clausewitz shibboleth still paralyzes many minds with thoughts of masses of men.

Men versus Machines in World War I

Foch took literally the Napoleonic maxim that "the morale is to the material as two is to one."† This ambiguous platitude fails to indicate that morale and material are inextricably intertwined. If weapons fail or logistics bog down, morale drops also. If tactics and strategy exploit the best weapons to their fullest capac-

* Arnold J. Toynbee, *A Study of History*, New York: Oxford University Press, 1947. Abridgement of Vols. I–VI by D. C. Somervell, p. 334.

ity and military success occurs, morale is heightened. One cannot talk of morale without considering material effects on morale. Yet Foch decided that since the greatest variable in war was morale, the material influence on morale need not be seriously considered. His belief in "the ever-increasing predominance of the human factor" took more the form of manpower than of moral power, and that manpower impelled to the resolute offensive in nearly every case.* Thus he neglected to weigh the impact of new weapons upon tactics and strategy. And consequently France was saved in the first World War not by machines or tactics but by a wall of human flesh, exhorted again and again to attack and gain ground.

The British experience in following this awful and treacherous beacon of war was cruelly brought home to them at the third battle of Ypres, where the casualty rate was 8,222 for each square mile captured, the most costly price ever paid for land. And what land! General Gough, who led the Fifth Army on this offensive, describes it as "waves and troughs of a gigantic sea of mud." The front had been "battered, beaten and torn by a torrent of shell and explosives which had lasted without intermission for three years . . . a storm of steel that no land in the world had yet witnessed . . . houses and hamlets pounded into dust so thoroughly that no man could point to where they had stood."† When the Canadians took Passchendaele Ridge in November 1917 after three months of bitter fighting, three hundred thousand British had been killed or wounded. And the front had been penetrated just five miles. Of course, land was not the announced objective; the purpose of this headlong slaughter was simply to contain the Germans. As preached by Foch, the way to contain was to take the tactical offensive against

* Foch, *Principles of War*, pp. 47, 328.

† Girard Lindsley McEntee, *Military History of the World War*, New York: Charles Scribner's Sons, 1937, pp. 360–362.

enemy strength. It is little wonder that Lloyd George lost faith in his army command after this unthinking and pointless operation. The morale which Foch talked about had plunged to the depths, both at the front and in Britain.

From these horrible battles of the first World War, one can appreciate the source of the obsession for taking and holding ground which sticks with us even today. Millions of men, imbued with the driving spirit to advance just a few yards more over the shattered bodies of their comrades, had to have a reason for this tragic maneuver, and they had to believe this to be a vital, even sacred, reason. This was the way to win the war, they were told. If it were not the way to win the war, they could not have possibly borne the burden or justified the carnage with their consciences. Plagued by the experience of such wholesale massacres, these veterans would forever revere the tactic of taking and holding ground. One can readily verify this by talking with a combat veteran of the first World War. Almost invariably will he admit to belief that wars can only be won by advancing riflemen who seize the ground and hold it.

It is understandable why this doctrine of taking ground has emotional overtones. The Army Public Information Bulletin of January 1951 contained an editorial pleading for more men on the ground, and a Department of the Army pamphlet the next month proclaimed, "There is no way of winning a war without men on the ground carrying combat to the enemy." A year later a Liaison Bulletin flatly stated, "The individual rifleman is the most effective and most essential weapon against an enemy."* It is not likely that this deep-seated belief, a belief refuted by history as well as by the facts of modern science, will change overnight with the announced policy of massive retaliation. Individuals hold to this soldier-on-the-ground doctrine with a fervent faith which reason cannot shake.

* Fellers, *Wings for Peace*, pp. 102, 103.

People who warn against the dangers of thinking that new weapons will save men are usually people who have been blindly and wholly saturated in classical doctrine. Their specious reasoning can be recognized in the contention that machines alone are being considered in the new doctrine, without human intellects to operate them. They are driven by the same reflex actions as those who fought the industrial revolution because it changed an established pattern of thinking and a habitual way of life. Men most certainly will always be the key to war, but they do not have to be men with bayonets any more than in agriculture they must be men with shovels. Modern soldiers can be armed with jet bombers, tanks, and submarines. These are all well-tested weapons, tested in the white heat of combat. Probably no munition in history has been tested as thoroughly as the nuclear bomb. And great masses of men will only hinder the celerity of these new forces. Quality troops able to apply these modern weapons most effectively will be the key to modern military power. Firepower will be measured not so much by counting the men as by analyzing the effects of the weapons they employ. Long before these weapons were tested, Giulio Douhet wrote: "Wait for the sanction of experience? That might have a lethal effect on us, for the experience might be gained with us the object!"

Effect of Air Warfare on Alliances

In an article Edward P. Katzenbach* suggested that the United States' allies would object to fuller reliance on air power as a defense strategy. He remarked that they would think we are willing to defend them with machines but not with blood. Guided missiles have not yet displaced crewed aircraft! And

* "The Diplomatic Cost of Military Penny Pinching," *The Reporter*, Feb. 2, 1954, pp. 18-21.

let us hope there is enough blood in the men of our air forces to satisfy any ally of our sincerity! The one hundred eighty thousand American casualties among airmen fighting over *festung* Europe in the second World War should have left no doubt in the minds of our allies of the blood that can flow in this kind of battle.* It is strange that some of our own people depreciate this human cost of air warfare.

The confidence our allies have in us, however, is in direct relation to how effective they consider our military strength. And Europeans, who have suffered under air war, are not deceived. They have long since gained a real respect for air power, even if we have not. As with us, our allies are likely to be far more concerned about security than they are about blood.

The incisive wisdom of Air Chief Marshal Lord Trenchard was largely responsible for Britain's rejection of the neo-Clausewitz doctrine before World War II and her assiduous development of an air force which saved her from defeat in the Battle of Britain. Today Prime Minister Churchill wishes to enhance this trend toward air power and speaks of "reshaping defense concepts." In July 1952, Air Marshal Sir John C. Slessor of the Royal Air Force and other members of the Imperial General Staff urged the United States to adopt an air strategy. Before the massive-retaliation policy was accepted, a staff study prepared by these British chiefs of army, navy, and air force was presented to our Joint Chiefs of Staff and Department of State by Sir Oliver Franks, the British Ambassador. The study proposed to substitute for the containment policy the use of superior weapons. At a conference held on this matter there was general accord that on foreign soil air forces are more welcome than ground forces.† NATO agreements have long required the United States to pro-

* AAF *Statistical Digest*, World War II, December 1945, pp. 50-52.

† Bonner Fellers, "Britain Turns to Air Power," *Readers' Digest*, October 1945.

vide the strategic air defense. This is no more than the massive-retaliation policy. The adverse press reaction in Europe to the massive-retaliation policy was not created by the leaders who feel responsible for protecting Europe from communism.

Approach to Military Education

Men, it is true, are the essence of military force. We can eulogize the longbowman, the armored knight, even the cavalryman of more recent years. We can honor them and praise them. But to resurrect them would be a crime against our citizenry. Men will always control, guide, and die with their weapons of war. There is nothing sacred about the weapon — only the man is sacred. Should we not then give him the weapons he needs for military success in this age?

Traditionalists make a point when they say that war must have uniformity and purpose. For want of safe and fixed principles a military establishment can confound itself with continuous and bewildering changes of weapons, techniques, tactics, and strategy. No consistency and no common direction are possible unless change is orderly and supported by the majority in the establishment. Thus, again, orderly change becomes a function of education. But education is a two-edged sword. If it indocetrinates with rigid principles, constantly hammering home the fixed and immutable nature of those principles, and if it offers neat solutions to every human problem in terms of these fixed principles, then change and development cannot take place. On the other hand, if education is a *search* for principles, always questioning and ever looking for ways to improve doctrine and relate new evidence to it, then education becomes dynamic and progress is possible.

A military establishment, like all purposeful institutions, must have consistency and uniformity, yet it must also change and

develop if it is to accomplish its tasks efficiently. Education in the military thus requires a mixture of both indoctrination and exploration.

Some assert that change should be gradual and evolutionary. This is the normal manner of military change. A well-established military institution is built on a series of successes, and it looks to its own history for future guidance. But it is in the history of the whole of mankind, his strife and troubles, his successes and failures, that one finds more reliable guidance. We should be far less concerned with the success of a military institution than with the success of our nation under our guiding Constitutional principles. And we must study our nation in the context of history if we are to understand its place and know its future.

Crécy and Agincourt

We would most certainly meet our nemesis if today's doctrine evolved as slowly as French doctrine of the fourteenth century. Taking a defensive stand on the field of Crécy, an English force largely composed of longbowmen stood to the attack of twice as many French armored cavalry. The longbowmen made a clean sweep of it, killing fifteen hundred French to the loss of fifty English. Sixty-nine years later almost the same conditions prevailed at Agincourt, except that this time the French had a still greater preponderance of numbers. The French outnumbered the English four to one! And the French noblemen galloped confidently forward with their obsolete armor in complete ignorance of the reason for the disaster at Crécy sixty-nine years before. Thus the longbowmen at Agincourt were responsible this time for killing five thousand gentlemen of France and capturing another thousand.

For ten centuries the armored cavalryman had been the queen of battle. But after Agincourt the man on the ground with a

longbow was supreme, and soon the longbow was replaced by the musket. For the next five hundred and forty years the infantryman has rightfully been called the queen of battle. But conditions change. We would do well to remember Agincourt and what happened to those who stubbornly resisted the obvious.

The Effect of New Weapons

"The manner in which war is waged varies from age to age and with the advent of new weapons," wrote Field Marshal Montgomery. "It is a constantly changing, constantly evolving thing." * The question bothering Americans is how fast should this evolution be? Should this evolution in arms proceed cautiously or boldly? Considering the unmistakable revolution in technology brought about by the discovery of atomic energy, jet engines, and myriad electronic mechanisms, should the attendant military strategy continue at its slow, plodding, evolutionary pace? Or should a revolution in strategy be encouraged to match the revolution in weapons?

Such a revolution was urged by Trenchard, Mitchell, and Douhet following the first World War. These original apostles of air power, each from a different country, projected the capabilities of air attack into future eras and proclaimed the dawning of a revolution in arms. The revolution is still under way, although many refuse to recognize it, warning against dangers of too rapid change.

Britain's Revolutionary Change

The first gleam of this revolution came in 1916 when British air units near Belfort attacked the industrial Saar basin of Ger-

* Field Marshal Montgomery, *Military Leadership*.

many. Results were minor, and Sir Douglas Haig, commander of all British troops, soon turned these air units away from their wild scheme and ordered them to support ground forces directly on the front. About this time German zeppelin raids on London caused people in Britain to visualize what might happen if this form of warfare were accented. The War Cabinet made a revolutionary change by giving aviation a voice equal to ground and naval forces in matters of priority, and this step led to the formation of an Air Ministry by the end of 1917. General Haig, in disrepute after the butchery in Flanders, could not dissent with authority. The creation at the highest policy level of an organization devoted to air power was an impetus to strategic change not found in our country.*

The Royal Air Force was formed as a separate and autonomous force exactly thirty years before the United States Air Force was created. This was undoubtedly influenced by the few experiences from bombardment suffered by London which gave statesmen a first-hand impression of how this new power might indeed lead to capitulation at home even while well-equipped troops still fought victoriously in the field. Meantime, the majority of our American leaders were wholly oriented to war as it was fought on the Western Front—they were adjusted to a theater concept rather than a global concept, to a purely military view, not a politico-military view. As a result America lagged in understanding.

The British Independent Air Force was formed in June 1918 to bomb industrial and rail targets far behind the battle lines. Using Handley Page bombers it grew from five to nine squadrons before the war ended in November 1918. Strategic bombing was born with this British scheme to have an air force strike deep

* H. A. Jones, *The War in the Air*, Oxford: Clarendon Press, 1937, Vol. 6, p. 121. In I. B. Holley, Jr., *Ideas and Weapons*, New Haven: Yale University Press, 1953, p. 137.

in enemy country at the very source of war supplies. Such operations were too distant from the front to be of any concern to those locked in the deadly struggle over terrain, hence it was thought the force should be entirely independent of surface control. It was a force aimed at the enemy's means to wage war, not specifically at his army in the field.

Even though the results of this first strategic bombing were considerable, they had minor influence on the outcome. Technology had not yet advanced to the point where aircraft had the range, speed, bomb load, and durability to take a decisive role. But technology was on the march and the vision was clear. Although seen and understood by few, this operation heralded a new theory of warfare.*

American Military Aviation in World War I

Development of American military aviation was retarded by an emotional component which has colored all progress since the American Expeditionary Force returned from France in 1919. A real appreciation of air power existed while the shooting went on, but with peace came dissension over air issues. General Mitchell's success in concentrating Allied aviation over the Argonne had brought him and aviation to a high stature. General Pershing was planning to put him in charge of a still more ambitious air operation for the 1919 offensive. In the summer of 1918 General P. C. March, Chief of Staff, was seriously considering the creation of an air force with a 1500-mile range, yet in 1920 under the Army Reorganization Act, the Air Service was made a combat arm of the line with a mission revolving around ground observation in direct support of other forces. After the shooting stopped, the concept of long-range strategic bombardment was completely rejected. Since one squadron of the Second

* Holley, *Ideas*, p. 140.

Night Bombardment Group was the only American bomber outfit to see action, and this for only two days before the Armistice, using castoff DH-4 and FE-2 aircraft, there was not much experience for our army to rely on.*

What had caused this about-face in the attitude of the war leaders? Testifying before Congress in 1919, General Benjamin D. Foulois, a flyer since 1908 who at one time had been chief of the AEF Air Service, provided a clue to the antagonism between ground and air officers. Foulois said that during his years of service in aviation he had "heard many high-ranking officers of the Army frequently refer to aviators as being 'temperamental as prima donnas,' 'too young for their rank,' 'lacking in discipline,' etc." "I have always resented these remarks," he added, "and always will." †

For the most part, senior officers "regarded the air arm as a threat to their own established prerogatives. Others tended to assume an attitude of indifference toward and contempt for air power." ‡ But application of the principle of unity of command, from opposing frames of reference, lent an intellectual background to the issue. Aviators wanted unity of command for the air arm, while the General Staff pictured this departure as the forming of another independent corps comparable to those troublesome bureaus which had existed before the Elihu Root reforms. The general-staff innovation adopted at the turn of the century had caused a heated schism when officers took sides. The inheritors of that forward step, the General Staff officers sitting in 1919, were determined not to have any retrograde movement from the hard-won general-staff principle. Nor, strangely,

* Holley, *Ideas*, p. 158.

† 66th Congress, 1st Session, Senate Hearings on S.2691 S.2693 S.2715: *Reorganization of the Army* (2 vols., Washington, 1919), p. 998. In R. Earl McClendon, *Autonomy of the Air Arm*, Air University Documentary Research Study, January 1954, p. 43.

‡ McClendon, *Autonomy*, p. 42.

would they countenance a suprageneral staff of army, navy, and air force, although this proposal was not advanced specifically before 1925.*

Another strongly held belief crept into the issue when it was proposed in Congress to lump all civil aviation and all military aviation into one department. Here the joining of civil and military activities threatened the underlying concept of civil control of the military. All these factors combined to create a controversy which almost hid the basic issues.

The nonflying ex-chief of Air Service, AEF, General Mason M. Patrick, reported in 1921 how the war "clearly demonstrated" that the function of observation (for surface forces) was "the most important and far-reaching mission of aviation in war." † The two-year delay in publishing this report has never been explained, but it suggests difficulties in coordination. American thinking was indeed reactionary as compared to British. Judging from General Pershing's final report, aviation had minor promise. No speculation on its future was submitted and no air policy recommended. Aviation was mentioned in but a single paragraph where airmen were praised for their courage. ‡ Truly the potential of onrushing technology was not being recognized. Nor was it likely that the few remaining airmen would have much voice in subsequent doctrine.

When the war ended, there were 431 air officers at AEF headquarters in Paris, only one of whom was a regular and likely to remain in the service. There had been 15,000 pilots trained for the war, but by 1919 there were just 234 regular officers in the entire Air Service. General Mitchell objected vehemently to the loss of this aviation talent, but the War Department seemed bent

* McClendon, *Autonomy*, pp. 42-57.

† *Final Report of the Chief of Air Service, AEF*, Air Service Information Circular 2, No. 180, Feb. 15, 1921, p. 45. In Holley, *Ideas*, p. 159.

‡ *Final Report of General John J. Pershing, Commander-in-Chief, AEF*, Washington: Government Printing Office, 1920. In Holley, *Ideas*, p. 160.

on getting rid of these unruly reserve officers, replacing them in many instances with nonflyers. Moreover, the flying officers retained were young and junior, which meant they had little opportunity to sit on policy-forming bodies.*

The continental concept of war was nailed down solidly in official circles when in 1919 General Pershing asked the Dickman Board, composed of superior officers of the AEF, to consider the lessons of the war. As expected, the board concluded that, "Nothing in this war has changed the fact that it is now, as always heretofore, the Infantry with rifle and bayonet that, in the final analysis, must bear the brunt of the assault, and carry it on to victory."† Such positive findings seemed to brook no further argument. It was true, as Secretary of War Newton D. Baker maintained, that direct damage inflicted by bombs had been relatively small and had had "no appreciable effect,"‡ but this observation should not have denied him and the War Department a broader vision of the future. The amazing technical progress during the war years could not have gone unnoticed. Technology grows. Of this we can be certain.

By 1921 airmen were beginning to feel that aviation was being grossly misunderstood and that our national defense was taking a dangerous reactionary turn. The thunderous authority of high rank which had so successfully concluded a major war did not look kindly at the questioning of its strategic decisions. As a rule, junior air officers had not had the advantage of service schools, and were expected to know little about war. Their recommendations were more often taken as presumption and an effort to gain the limelight. The drama of air action had wrapped an aura of glamour around the military aviator which had not

* Holley, *Ideas*, p. 169.

† *Ideas*, p. 170.

‡ *Ideas*, p. 170.

been appreciated by officers fighting the grim, dirty battle of the trenches. Envy of the aviator's clean living conditions, extra pay, and public prestige hindered objective evaluation of aviation. Naturally, the aviators struck back, often with more vigor than finesse. Emotions rose in bitterness, culminating in a crescendo of acrimony at the court-martial of General Mitchell.

Billy Mitchell

General Billy Mitchell was no novice to politics, yet his bulldog tenacity of purpose kept him on a single-minded crusade for air power at the expense of his own career. Nor was he simply an aviator. He knew war. The son of a United States senator who was himself a war veteran, Mitchell had not yet decided on a career when war was declared on Spain. As a young student at George Washington University he immediately dropped his books to join the colors. Mitchell served continuously for twenty-eight years until court-martialed, but his studies never ceased. He was an avid student of warfare throughout his service, and he experienced three wars.

By May 1898, when only eighteen years old, Private Mitchell was offered a commission in the signal corps. His first action came not against the Spaniards, but against seventy-five rioting soldiers in Washington. Taking fourteen men armed with carbines, he located the rioters in a hotel and, after posting his men around the building, entered unarmed. He found the deserters making a shambles of the hotel bar, enjoying themselves immensely. The young officer commanded, "Attention," managed to lead all the rioters outside for a roll call, then marched them three miles to the guardhouse.*

* Isaac Don Levine, *Mitchell, Pioneer of Air Power*, New York: Duell, Sloan & Pearce, 1943, pp. 22-24.

Mitchell waited all summer in Florida for a chance to get into the war. His chance never came. At first hand he observed the logistical confusion which accompanied our military activities and made the discerning comment in a letter home, "I really do believe that if we had been up against a first-rate power, they would have whaled the mischief right out of us." * Mitchell withstood the ravages of disease at Camp Cuba Libre in Jacksonville, even though at one time the company of 106 which he commanded was down to 26 effectives. Finally, he sailed for Cuba, where he helped build 138 miles of telegraph line in the jungle, learned Spanish, fought bandits, and studied military history before being ordered to real action in the Philippines.

Aguinaldo was leading an insurrection and Lieutenant Mitchell was assigned to the division of General Arthur MacArthur, father of Douglas, who was at that time a student at West Point. Still in the signal corps, Mitchell built telegraph lines under fire. And here for the first time he began to recognize the importance of technical advance in the field of military art and science.

Mitchell recalled the dogmatic remarks of General William R. Shafter, who had commanded the Cuban expeditionary force, and who had no use whatever for field telegraph equipment. Every modern army in the world was using electrical communications, but General Shafter wanted only men with guns on their shoulders.

The campaign in the Philippines was planned without learning from earlier experience. In Cuba wire communications had eventually proved profitable to the operations, yet a mere 100 miles of telegraph line was the requirement established for the Philippines. Consequently, the imaginative lieutenant had to find ways of improvising in order to meet the communications demands of his commander. Wire was not to be had, but Mitchell discovered that many old cannon were wire wrapped for strength. These he

* Levine, *Mitchell*, p. 25.

unwrapped, stringing the wire. By the time Aguinaldo was captured by the dashing Funston and the campaign brought to a close, over 16,000 miles of wire and cable had been laid in the Philippines.*

Billy Mitchell left the Philippines just before the turn of the century and proceeded home via Japan and China, where the Boxer Rebellion was in progress. Thence to India and Egypt, where he met his father and proceeded to Paris for a family reunion. Mitchell's keen interest in world affairs stimulated by on-the-spot inspections was giving him insight into the global power structure. From Europe, at the age of twenty-one, he returned to the United States to receive a regular army commission.

Soon he was in Alaska, a new world to conquer, where he was assigned a major role in constructing 2200 miles of telegraph line through the primeval arctic. Two years of adventure and more study, two years of effort to get adequate funds and equipment from the War Department, further enriched the education of Billy Mitchell. When he left Alaska in 1903 as the youngest captain in the army, wire communications had been opened from Nome on the Bering Sea to Washington, D. C. A year later his first journalistic effort, a narrative of the building of the Alaskan telegraph, appeared in the *Denver Times*.

Back in the States Mitchell's thirst for more and more knowledge was whetted by studies and experiments in aeronautics, electricity, radio, photography, tactics, and strategy until he was ordered to Leavenworth at the age of twenty-five as an instructor in the Infantry and Cavalry School of the Staff College. Many of his lectures on signal communications were published for use as texts, and his interest in the art of war is noted from a discerning article he wrote in 1906, published in the *Cavalry Journal*. "Conflicts no doubt will be carried on in the future in the air, on

* Levine, *Mitchell*, p. 53.

the surface of the earth and water, and under the earth and water." *

When ordered to assist in the rehabilitation of San Francisco after the devastating earthquake, Mitchell got his first view of how a city virtually dies as a social organism when visited by widespread destruction. It is not beyond reason that Mitchell formed a relationship between this experience and the kind of bombing which he later claimed could occur in war. Further military study at the School of the Line and the Staff College, where he graduated with distinction, left him time to speculate on war when aviation was first making itself known to the world.

Another tour in the Philippines, however, prevented Mitchell from getting in on the ground floor of aviation. While in the Far East he expanded still more his knowledge of the world by studying intensively Japanese topography and witnessing the Chinese revolution which overthrew the Manchu dynasty. By 1912 he was back in Washington, the youngest officer ever to be assigned to the general staff. His duty was to collect military information concerning the Balkan wars then flaming. Air war was being attempted in the Balkans. Combat tests under fire were being made of the experiments first conducted at College Park, Maryland, by Riley E. Scott and Thomas DeWitt Milling in 1911: aerial bombing.

Mitchell was still on the General Staff when the great war in Europe exploded. Already he was critically analyzing strategy and in 1915 had submitted a paper for an Army War College study entitled, "Our Faulty Military Policy." In 1915 he wrote in this paper: "Without preparation in time of peace, no nation today has the remotest chance of defending itself against a world power." Forty years later there can be no question of this truth.

The United States has been allowed at least one year to prepare for each of the last two world wars because allies held off

* Levine, *Mitchell*, p. 75.

the aggressor. With modern air power this advantage is lost forever. The traditional military policy of mobilizing after we find ourselves at war is as obsolete as horse transportation, and those who still plan for it are out of place in time. As Eisenhower testified before the Compton Board in 1947, decision in a future conflict will be determined by our ability to act and react in the first sixty days.* Today it is more likely to be sixty *hours* or less. The value of springing to arms in minuteman fashion after war has begun is simply not worth debating. Supersonic speeds and single bombs measured in megatons (one megaton equals one million tons) of TNT put such an emphasis on speed of attack that one minute of avoidable delay is unthinkable. Technology has forced us to change our policy; it is not a question of choice, unless we seek national suicide.

In the winter of 1915-1916, Mitchell, at thirty-six, went to the Glenn Curtiss flying school at Newport News. He was not detailed to this duty, but attended on his own time over week ends, taking the night boat from Washington on Saturday and returning to the War Department for work Monday morning. His first solo after four Sundays resulted in a crack-up, but his flying experience was enough to gain him an appointment as head of the aviation section of the signal corps and a promotion to major. When America entered the war, Mitchell was in Europe as an observer, and there he stayed until the Armistice.

Major Mitchell observed the disastrous spring offensive launched by General Nivelle which cost the Allies three hundred thousand lives in a head-on attack made by seas of human bodies. And he wondered, as he flew over the heads of those surface armies, what had caused the war to stagnate into mutual annihilation. Ground masses locked in combat for three years

* Report of the President's Advisory Commission on Universal Training, *A Program for National Security*, Karl T. Compton, Chairman, Washington: U.S. Government Printing Office, May 29, 1947, p. 16.

were killing people at an unprecedented rate. He wondered if there might be other ways to fight war. It took but a few minutes to cross the flaming lines in his airplane. Yet below thousands of lives were being sacrificed for every few yards after months of struggle. The strategic implications of air power were forming in his mind. Mitchell's inquisitive intellect questioned all the established rules of warfare.

Hugh Trenchard

Seeking answers to the riddle on the Western Front, Mitchell, in May 1917, visited General Hugh Trenchard, commander of the Royal Flying Corps and the guiding spirit behind a pioneering theory of war. The British had not been overly persuaded by the Clausewitz theory of war as propounded by Foch. Britain had achieved world dominance not through major wars but through limited wars of maneuver, attrition, and threat. Strength and celerity on the high seas had been her decisive strategy, not great masses of men with hand weapons, prepared to attack under almost every circumstance. Alfred Thayer Mahan was given far more credence by the British than was Carl von Clausewitz.* It was not surprising that the original air ideas of Trenchard fell on fertile ground. The independent Royal Air Force was created with little opposition from other armed services. Trenchard's plan to attack industry and transportation from the air was a strategy quite similar to the strategy behind the dying Pax Britannica.

The very nature of aircraft, stressed Trenchard, caused them to be offensive weapons. Just as naval warships are useless when bottled up in a harbor, so are aircraft impotent and vulnerable when on the ground. Therefore, they should not be tied to ground armies, but should have a free hand to operate far be-

* Earle, *Makers of Modern Strategy*, pp. 415-445.

yond the surface battle. Air forces, like naval fleets, must always be employed in offensive operations, yet these offensive operations might well contribute to a defensive strategy, he insisted. This thesis was adequately demonstrated twenty-three years later at the retreat from Dunkirk. "As a weapon of attack the aeroplane cannot be too highly estimated," asserted Trenchard, for air forces could and should take the offensive even when surface forces were on the defensive.*

Lord Trenchard perceived a characteristic of air power which, even today, is difficult for the uninitiated to comprehend. No amount of air defense will prevent the invasion of hostile aircraft "simply because the sky is too large to defend." Trenchard's prediction proved sound even after the invention of radar. There was never a time in the second World War when a large force of attacking bombers did not reach its target. The problem was not one of detection, for radar extended vision hundreds of miles and could usually make detection a certainty. It was a problem of vast space coupled with the high speed and maneuverable features of aircraft which hindered interception. Even when it was known what restricted area the invaders would attack, air defense was extremely limited. In the Battle of Britain detection of German invaders was almost perfect, and it was generally known what targets they would strike. Still, bombers always got through. No more than five per cent of invading aircraft were ever destroyed on a single assault. This tactical condition prevailed on both sides throughout the war, and in the foreseeable future little change can be expected. Technology and tactics provide no hope for complete air defense at this writing.

The isolation of the British Isles behind the Royal Navy was a condition of the past, prophesied Trenchard with keen accuracy, for air power would bridge the English Channel without difficulty. "The British frontier is now in Europe at aircraft range

* Earle, *Makers of Modern Strategy*, p. 96.

from the British Isles,"* he said. Today, with global ranges of aircraft, America's frontier is also in Europe — and everywhere under the "limitless blue dome of the sky."†

Trenchard was well grounded in war and not one to be taken lightly. He was commissioned in the Royal Scots Fusiliers in 1893 at the age of twenty and served in the Boer War while Mitchell was fighting Aguinaldo in the Philippines. As early as 1912 Trenchard learned to fly and became an instructor at the central flying school of Upavon, later becoming head of the famous school at Farnborough. But when France was invaded, Trenchard's knowledge of air war was needed at the front, and he was transferred to lead the military wing of the Royal Flying Corps. He rose from major to major general in less than one year.

Trenchard pounded home the thesis that air forces should be centrally commanded and independent of ground forces. His strong character and determination in this mission were instrumental in forming the Royal Air Force in March 1918, just before the German spring offensive that was again going to force the Allies back to within fifty miles of Paris. Forty German divisions released from the Russian front by the collapse of the Czarist armies were to be thrown relentlessly against the exhausted French and British before significant American forces could join the defenders. Yet in the face of this known danger, Britain was courageous enough to cause a major reorganization in its air establishment. When the Independent Air Force was formed, Trenchard took command.

The indomitable spirit of Trenchard forged the RAF and gained acceptance in Britain of a revolutionary doctrine of war. Mitchell attempted to emulate Trenchard in his effort to alter American concepts of war, but he found American traditions far less flexible. The American public had not been long enough at

* Earle, *Makers of Modern Strategy*, p. 97.

† Fellers, *Wings for Peace*, p. 107.

war or close enough to the conflict. After the war we could not make up our collective mind about the distasteful subject. Better to forget the unpleasant business. Anyone, such as Mitchell, who persistently called our attention back to the worrisome problem of military defense was as annoying as an alarm clock.

Mitchell and the Army

When Mitchell returned to Paris from his visit with Trenchard, he found orders promoting him to lieutenant colonel, and within a few days General Pershing arrived to set up the AEF. Reporting to Pershing in a flashy nonregulation uniform tailored to his own likes, Mitchell no doubt stimulated the existing prejudice against flamboyant aviators. Pershing was a stickler for proper dress. Additionally, Mitchell did not like the way the war was being run. His diary records his disagreement with the strategy being employed and suggests a strategy in complete opposition to the Foch concept in vogue with our army, that of defeating the enemy forces in the field. Mitchell's outspoken temperament would not have left these lines confined to his diary:

[War] is a slaughterhouse performance from beginning to end on the ground. . . . Maybe one side makes a few yards or maybe a mile and thousands of men are killed. It is not war, it is simply slaughter.

War is decided by getting at the vitals of the enemy, that is, to shoot him in the heart. This kind of war is like clipping off one finger, then a toe, then an ear, then his nose and gradually eating into his vitals.*

Following Trenchard's lead, Mitchell urged General Pershing to recommend the establishment of an air-service department comparable to the Air Ministry established in London. But the

* Roger Burlingame, *General Billy Mitchell, Champion of Defense*, New York: McGraw-Hill Book Co., Inc., 1952, pp. 70, 71.

recommendation was never sent to Washington by the AEF.^{*} A year later Mitchell was still plugging for reorganization, as his diary indicates:

The General Staff is now trying to run the Air Service with just as much knowledge of it as a hog knows about skating. It is terrible to have to fight with an organization of this kind, instead of devoting all our attention to the powerful enemy on our front.

I have had many talks with General Pershing . . . some of them very heated, with much pounding on the table on both sides. One time he told me that if I kept insisting that the organization of the Air Service be changed he would send me home. I answered that if he did he would soon come after me. This made him laugh and our talk ended admirably.[†]

In May 1918 General Mason Patrick, an engineer who had been working on construction projects, was appointed commander of the entire Air Service in France. He was a classmate of Pershing and could be depended upon to conform to established military doctrine. Patrick replaced General Foulois, an early flyer who also envisioned changes in warfare. Foulois was given Mitchell's job as First Army Chief, and Mitchell was reduced to assistant. (On behalf of General Patrick, it must be said that he later became a strong advocate of a unified air force.)

But the demotion did not dampen the Mitchell ardor. He organized a brigade of United States air units and had himself put in command. Then, at the St. Mihiel offensive, he planned and executed the first American air effort in concert with ground forces. "It is," he wrote in his diary in September 1918, "the greatest concentration of air power that has ever taken place."[‡]

^{*} Burlingame, *General Billy Mitchell*, p. 74.

[†] Burlingame, *General Billy Mitchell*, pp. 85, 86.

[‡] Burlingame, *General Billy Mitchell*, p. 94.

He was now putting the Trenchard philosophy into practice. Air power would not exclusively support, but would cooperate with ground forces, acting from the air as a vital force of decision in its own right. This budding air power had no little to do with the two-day collapse of the St. Mihiel salient and the capture of sixteen thousand German prisoners.

On the first of October Mitchell was appointed brigadier general. And before the war was over Mitchell presented another revolutionary plan, a plan for an airborne army, a vertical parachute envelopment behind the lines. But the great war came to a halt and this idea did not materialize until it was tested years later in exercises at Kelly Field, Texas.

By 1919 Billy Mitchell was alarming the army and the navy with his claims for air power. He told the navy board: "If we look forward, there will be a ministry of defense, combining army, navy, and air force under one direction." ^{*} Not until 1947 was this prophecy realized. Except for a very few men of imagination the concept of unity of command in the air was persistently suppressed by the old guard of the neo-Clausewitz persuasion. Yet some outstanding officers backed the Mitchell doctrine. Notable among them was Admiral William S. Sims, who regarded the naval opponents as "hidebound, unfitted and uneducated";[†] Admiral Winterhalter, who shocked traditionalists by declaring that warships "are most vulnerable . . . to attack from the air";[‡] and Admiral Bradley Fiske, who recommended air power for the defense of the Philippines.[§] Some senior army officers also looked objectively at Mitchell's theory, including his ex-commander of the First Army Corps, General Hunter Liggett; General Joseph E. Kuhn, president of the Army War Col-

^{*} Burlingame, *General Billy Mitchell*, p. 109.

[†] Levine, *Mitchell*, p. 359.

[‡] Burlingame, *General Billy Mitchell*, p. 111.

[§] Levine, *Mitchell*, p. 216.

lege in 1917 and later 79th Division commander; Generals George W. Reed, Peter E. Traub, Clarence R. Edwards, William H. Hay, and Leonard Wood. General Hay, in particular, went on record as "strongly in favor of the bill . . . to establish a department of aeronautics as a Cabinet position."

Just after the war a mission had been sent to Europe under Benedict Crowell, Assistant Secretary of War, to study foreign aviation organizations. It was composed of able industrialists with representatives from the army general staff and the navy general board, a group organized somewhat like the fact-finding D'Olier Board which followed the second World War. Upon its return, the Crowell Board unequivocally recommended a centralized department of aviation. But the report was not acceptable to the established order and, according to Crowell, it "was immediately shelved upon its presentation." *

Aviation trod a rocky road in America, one that was mined with antagonistic charges and countercharges, the residue being found today in adverse reactions to the massive-retaliation policy. Perhaps some catastrophe would have roused slumbering America from its lethargy, but none occurred while Mitchell was crusading.

Giulio Douhet

In Italy a dramatic event facilitated the creation of a central air establishment. As early as 1913 an Italian lieutenant colonel of artillery was getting a reputation as a firebrand who made exorbitant claims for air power. "The air space will be sovereign," he lectured. "A new arm is born, the arm of air. A new field of battle has been opened: the sky. A new fact has presented itself to the history of war, the birth of a principle — air warfare."

* Levine, Mitchell, pp. 176-178.

This was Giulio Douhet,* who had the temerity to criticize the strategy announced by his commander in the early days of the war. Douhet was court-martialed and sentenced to a year in prison at Fenestrelle. He was released just before the catastrophic Italian defeat at Caporetto, and it was later revealed that he had not only predicted this disaster with amazing accuracy but had also proposed a strategy to prevent it. He was reinstated, his sentence was reversed, and the gratitude of the country was expressed for his timely warning. Douhet's reputation as a vindicated prophet had been established by the time his book, *Command of the Air*, was published in 1921. A short time later a Department of Defense was created in Italy with a separate air arm.

Douhet's book might have provided some help to Mitchell, but it was not translated until 1933, and then it was produced only in manuscript form without publicity. Brigadier General Oscar Westover and Captain George Kenney, both air corps officers, sponsored the translation by Miss Dorothy Benedict. This manuscript was studied in a somewhat clandestine way at the Air Corps Tactical School. The first public translation by Louis A. Sigaud did not appear before 1941, too late to have an effect on the strategy of the second World War.

Douhet challenged the doctrine that wars must be waged exclusively between armed forces. Germany's armed forces were not defeated in the first World War, he asserted; it was the nation itself that succumbed to attrition. The German nation had no longer been able to supply its armed forces or to support the battle. The sum total of a nation's strength is involved in abso-

* *Air Warfare*, translated by Miss Dorothy Benedict, File 358.4, D737a, Air University Library, Maxwell AFB, Ala.; also, Louis A. Sigaud, *Douhet and Aerial Warfare*, New York: G. P. Putnam & Sons, 1941; also Sigaud, *Air Power and Unification*, Harrisburg, Pa.: Military Service Publishing Co., 1949.

lute war, he argued, and armed forces are but one element of this national strength.

Victory does not come solely from battle, Douhet maintained, but from "intelligent and economic use of material and moral resources, and from the exhaustion of the enemy's similar assets." * He was an early proponent of psychological warfare and suggested air drops of leaflets over Vienna to impress Austrians that bombs could have been used instead. The whole of a nation is a target for future air war, Douhet insisted. His book was the first publication to spell out the Trenchard-Mitchell theory of strategic air war. This theory challenged the entrenched neo-Clausewitz doctrine and was roundly condemned by those who could not visualize war in its larger social context. Marshal Pétain called it thoroughly sound in premises and development but with "disconcerting conclusions." † Some Americans attacked it on moral grounds as a "theory of frightfulness." ‡

But Douhet had forewarning of such arguments *ad hominem*. "My theory," he wrote, "is constructed solely for a defensive objective. If this objective can only be obtained by offensive action, it is not my fault, it is the fault of the arm of space which is good only for the offensive." § A strategic national defense, he said again and again, will require a military offensive simply because air weapons are best adapted to offensive tactics. It is nobody's fault that this is so, nor is it immoral to recognize a fact of life.

Air defense, Douhet maintained, was not inherently possible to any great degree because of the multiplicity of paths upon which air attacks may move and the uncertainty of their objectives. Defense, therefore, should be the task of ground forces, to hold friendly bases and keep the enemy at bay while air went

* Sigaud, *Air Power and Unification*, p. 20.

† Sigaud, *Douhet and Aerial Warfare*, p. iv.

‡ *New York Times*, June 5, 1938.

§ Benedict translation, p. 8.

over the lines and pounded those establishments which supplied enemy forces.

The major thesis, and that held by both Trenchard and Mitchell, as well as by Seversky of contemporary times, was that command of the air is of first priority to any military success in war.* This simply meant that before any major military operation becomes at all possible, enemy air power must first be swept generally from the skies by air forces, and that "nothing can stop the attack of aircraft except other aircraft." † "The most crucial element of modern war is the air battle," Seversky declared as late as 1950.‡

As to war objectives, Douhet recognized the dynamic character of international politics. Objectives depend on constantly changing economic, social, political, and psychological conditions, and air power is uniquely adapted to influence all of these conditions, in war as well as in peace. Air power can act against armies, navies, industries, and cities. Air power will inflict maximum damage in the least possible time, and in the precise location where the enemy is most vulnerable.§

Mitchell was defeated in his crusade because people were skeptical of his seemingly grandiose claims for this new arm of warfare. In our atomic age it should be recognized that his claims were modest rather than grandiose. Yet faced with the fact that air power provides the most destructive force conceivable, acceptance of the Mitchell doctrine is still not universal. Now, paradoxically, traditionalists seem to feel that air power is *too* destructive to be used in war.

* Giulio Douhet, *The Command of the Air*, translated by Dino Ferrari, New York: Coward-McCann, Inc., 1942, *passim*.

† William Mitchell, *Winged Defense*, New York: G. P. Putnam's Sons, 1925.

‡ *Air Power: Key to Survival*, p. 199; also, *Victory through Air Power*, New York: Simon & Schuster, 1942.

§ Benedict translation, p. 5.

In coming to this anomalous conclusion, do they consider enemy capabilities and intentions?

There is an inescapable fact we must all face: When the very lives of nations are at stake in absolute war, that nation first able to apply the most destructive power to the heart of its enemy will be the nation to survive. No power can be *too* destructive in *absolute* war. And it is not unlikely that fewer casualties will occur in such a conflict than in a four-year war like the 1914-1918 conflagration. Certainly one side or the other will seek terms before eight and one half million people are killed.

A superficial analysis of modern military power has led some people to the conclusion that a policy of preventive war is inescapable. In other words, they believe a surprise attack in the Pearl Harbor manner should be the principle military strategy. But such a strategy would not only negate all we stand for, it would also have doubtful military consequences. The bully boy or the bully nation is usually ganged up on, and that would likely happen to any nation that started an unprovoked atomic war. Moreover, an attack intended to surprise may be foiled if the opponent is alert, able, and well armed. And the attacker himself may be surprised instead by a massive counterattack. A world power in the air-atomic age need not be an aggressor to survive, but it most certainly must be that nation with the best qualified military establishment. Only a highly trained and superbly equipped force can be expected to react with more speed and effectiveness than an aggressor.

Douhet thought that technical advances contributed much to the principle of surprise and that this was at least as significant as strategic surprise. "The form of any war," he wrote, "depends upon the technical means of war available." * His emphasis on technical development, of course, was common to all prophets of air power, for it was the technical development of the airplane

* Ferrari translation, p. 6.

that was changing the face of war. A search for quality and better equipment took first place in the art of war among men of this stamp.

After World War I

General Mitchell naturally expected his views to be vindicated when his Air Service sank the 27,000-ton German battleship *Ostfriesland* together with a number of other captured and obsolete vessels. The tests were run off Virginia by the navy in 1921 and conducted under rigid rules with which the Air Service was forced to comply. Newspaper writers made much to-do about the disputed concept of air versus sea power, and the verdict of the joint army-navy board was that nothing materially had changed, that "the battleship is still the backbone of the fleet and the bulwark of the nation's defense." *

Vitriolic denunciation of his superiors in the public press led to a court-martial which Mitchell welcomed. He believed that by this ultimate act he could bring the truth home to the public and force a reorganization of national defense which would emphasize air power and provide the military unity of command so necessary to successful war. His trial was a dramatic one but it failed to accomplish his purpose. He was convicted and he left the service in 1926. For the ten remaining years of his life he continued the disheartening crusade as a civilian. But the nation was concerned with domestic problems and bureaucracy was becoming more firmly entrenched in the peaceful years.

Douhet's career followed a similar pattern, for he resigned after the war and devoted himself to writings which were published regularly in *La Rivista Aeronautica* until his death in 1930. But Douhet had made his major point and was not as bitter as Mitchell. Thus his writings carried less emotional criticism and

* Levine, *Mitchell*, p. 269.

have been accepted throughout the world as systematic presentations of a revolutionary theory. Mitchell's works, however, are far more reliable because of his wider practical experience with the operations of air power.

Air Chief Marshal Trenchard is the only survivor of the world-shaking triumvirate. He carries on the crusade for dominant air power as the most decisive force in modern war.

Air Doctrine of World War II

Absence of an official doctrine emphasizing the employment of air power led to a period of aviation stagnation between the World Wars. There seems adequate evidence that the extraordinary impetus of technology was not grasped in official circles. Just as early steam engines were anchored to horse-drawn stage-coaches, the modern soldiers attempted to anchor the airplane to massed ground forces. American aviation in being was so far behind technical capacity at the opening of the second World War that no other strategy but a ground advance seemed feasible. What successes we had with air-sea power came late, after a long wartime build-up. In the meantime the surface strategy had been established and the immense war machine put in motion primarily on the neo-Clausewitz pattern.

The 1930s had seen some slight progress at the Air Tactical School, however, in looking at aviation through Mitchell-Douhet glasses. In 1935 Training Manual 440-15 appeared with the suggestion that air forces should be operated offensively as unified organizations rather than be parceled out to surface units for piecemeal employment. The principles expressed by this manual, however, were violated when tactical air organizations were placed under command of ground units as the second World War began. Each surface commander utilized his small air unit

for umbrellas and other defensive activities, leaving the enemy air force relatively unmolested.*

This surface control of air forces continued in Tunisia while the air situation deteriorated. The unwieldy system was officially subscribed to as late as 1942 by Training Manual 31-35 with a title which left no doubt of the role such air forces should follow: "*Aviation In Support of Ground Forces.*" (Italics added.)

The error of this doctrine was dramatically indicated when Rommel's Panzer divisions roared into Kasserine Pass on the morning of February 20, 1943. Although there were more Allied than Axis aircraft available, the dissipated air organization prevented Allied air power from concentrating in time. Axis forces, for example, had been allowed to assemble one hundred fifty thousand men in range of our air fields. Kasserine was a tactical defeat and a critical threat to the Allied campaign. Fortunately we learned a lesson about employing air power as an entity which was not forgotten for the remainder of the war. Air power was reorganized into central air commands under air leaders, thus permitting the inherent flexibility of the swift vehicle it embraced.†

There was, of course, a strategic air force in Tunisia at the beginning of the campaign, but this organization had been used primarily for antisubmarine operations and the attack of Sicilian and Italian targets. When the air units assigned to surface armies were unified after Kasserine, all aviation in the theater could work in concert to defeat the enemy air force. The superior Allied numbers could then be marshaled to wrench air superiority from the enemy. Air forces became coordinate to ground

* Lt. Gen. Laurence S. Kuter, USAF, "USAF Doctrine," lecture given at Air Command and Staff School, Air University, May 28, 1954.

† Albert Simpson, "Tactical Air Doctrine: Tunisia and Korea," in *Air University Quarterly Review*, Summer 1951.

forces, decisive in their own right, and their offensive roles were highlighted.*

Tunisian victory was consummated in July 1943, and within three months a new doctrinal manual appeared to authenticate the revised system of air operations. War Department Field Manual 100-20 represented the first official recognition that air forces should be operated under a unity of air command and under air leaders. It also recognized that air superiority was the first requisite for success in any battle, air or surface.†

By the end of the war the "support" manual, FM 31-35, was rewritten and titled *Air-Ground Operations* (1946), eliminating the ancillary implications of the term "support" and announcing the coequality of air and ground forces under the theater commander.‡

The evolution of war plans just prior to and shortly after America entered the second World War revealed other War Department concepts of air doctrine. In July 1941 President Franklin D. Roosevelt sent notes to the Secretaries of War and Navy which began, "I wish that you, or appointed representatives designated by you, would explore at once the over-all production requirements required [*sic*] to defeat our potential enemy."§

The President asked for a reply within thirty days, and the air corps was asked to submit its portion of the study in a matter of weeks. The basic framework of the estimate was to follow the strategic design of the then current war plan called Rainbow 5 and the ABC-1 (American, British, Canadian) agreement. These documents called for an offensive against Germany, initiated by

* Kuter, "USAF Doctrine."

† Kuter, "USAF Doctrine."

‡ Kuter, "USAF Doctrine."

§ Maj. Gen. Haywood S. Hansell, Jr., USAF, "The Development of the United States Concept of Bombardment Operations," lecture, Air War College, Air University, Maxwell AFB, Ala., February 16, 1951.

sustained air attack. Working under pressure, air officers prepared a plan based on doctrine which had been developed at the Air Corps Tactical School. It is a tribute to the forward thinking of that small school that the plan, prepared just thirty-three days after the President's message, became the central thesis for air production and employment throughout the war. Called AWPDP-1 (Air War Plans Division, Plan No. 1), it set the pattern that led to the victories of World War II.*

AWPDP-1 rested on a prediction of offensive global air war, beginning in Europe and later extending to the Pacific in conformity with the Rainbow 5 and ABC-1 guidelines. What was unusual about AWPDP-1 was its prediction of the effectiveness of massed heavy bombardment directed at industrial targets in enemy interiors. The plan called for 239 active air wings (then termed groups) requiring 63,467 airplanes. This was an unheard-of concentration of air power. The plan forced an industrial output far greater than anyone had ever thought possible.

Still more unusual, AWPDP-1 was adopted wholeheartedly by the War Department. A review of preceding events might suggest why there had been such a marked shift in philosophy. France had fallen to a surprisingly strong German thrust thirteen months before. The Battle of Britain one year before had focused attention on the deadliness of air power. And when AWPDP-1 was adopted, Germany was charging into Russia with 120 divisions and 3000 aircraft at a velocity of forty miles per day. Smolensk and Kiev had fallen by a great envelopment which netted 665,000 Russian prisoners. And Rommel was knifing east toward Alexandria.

Indeed, the war was going against the Allies, and American neutrality appeared impossible. Adoption of AWPDP-1 was so swift that the phrase which called for air forces as a *secondary* mission "to support a final offensive if it becomes necessary to

* Hansell, "Development of U.S. Concept."

live in a world in which that view has not been universally accepted. The opponents of democracy believe they are right in their philosophy to liquidate those who do not agree." * So long as this condition exists, we must strive for an invincible military establishment, ready for instant action, and face the fact that war has moved into a new dimension.

* *A Program for National Security.*

6. Doctrine for the Future

*Yet sleek with oil, a Force was hid
Making mock of all we did,
Ready at the appointed hour
To yield up to Prometheus
The secular and well-drilled Power
The gods secreted thus.*

RUDYARD KIPLING, *The Inventor*

THE free nations want peace. However, peace is not had merely by wanting it. Peace has to be worked for and planned for. Sometimes it is necessary to take risks to win peace just as it is necessary in war to take risks to win victory. The chances for peace are usually bettered by letting a potential aggressor know in advance where his aggression will lead him." * These were words of Secretary of State Dulles in a speech he delivered six weeks after announcing the policy of instant and massive retaliation. They strike at the heart of America's great task: to keep peace. We must work and plan for it. And we must take risks. This is the paradox of life. Related is the truism of Flavius Vegetius written in the fifth century: "He who wants peace, prepare for war." George Washington expressed the same thought in his "Farewell Address."

If we aggressively seek peace, we must insist on putting down the threats to peace. Brush fires must be stamped out before

* Speech to Overseas Press Club, in *New York Times*, March 20, 1954.

they become forest fires. Like the back fires that are sometimes lit to keep a brush fire from spreading, the extinguishing agent we must use on these fires is unfortunately a dangerous one. It is moral force backed by physical force, and this agent itself has a certain indeterminant flash point. When it ignites, it may start the conflagration we wished to avoid. The agent might be compared to an early field piece directed at the enemy. The weapon was so crude it sometimes exploded in the face of the cannoneer himself. Moral force backed by physical force, however, seems to be the only weapon available to us for putting out international brush fires. Some day we may achieve effective international law, but this dreamed-of agent is still in the laboratory. Today we must rely on moral force, or the fire will certainly spread. We must take the risk, just as the early cannoneers did. Wishing will not put out the fire.

Military planning which rests on military doctrine and national policy will determine the strategy we employ in an all-out war. Many risks must be taken even in this planning phase. No one can be absolutely certain of the outcome in any enterprise of this magnitude, and at best man's record in predicting social events is something less than auspicious. Planning should always bear in mind the dual objectives of keeping the peace and of winning the war if peace is broken. To keep the peace, a nation has two major courses of action. It may isolate itself within defensive bastions as ancient China did, or it may deal freely with its neighbors and keep a strong mobile force to repel any assault upon its open borders. Both systems have met with some success in history. For the United States, when broad oceans and arctic wastes were definite barriers, isolation was a successful policy. Today technology has transcended these barriers, and we have abandoned the isolation policy, though dreams of our former security persist.

Offensive versus Defensive

A question is raised today of the wisdom in adopting a military offensive policy to back up our political defensive policy. In other words, some feel we should concentrate on air defense at the expense of air offense as represented by the Strategic Air Command. They believe a "Fortress America" would be more consistent with our political objectives. The policy under which we operate today, however, is to put more faith in the offensive force, not only as a retaliatory mechanism but as the best military defense. As stated by the Secretary of the Air Force, "The only truly effective counter to this threat [of enemy air onslaught] is to prevent such an attack from being launched." *

The balance between the offensive and the defensive in warfare is a subject which requires continued critical analysis from all points of view if a nation is to make sound predictions. Only those nations whose predictions are most accurate can expect to survive in a world where erroneous judgment is ruthlessly punished. Offensive-defensive conditions are dynamic and fluid; they are constantly being changed by scientific invention, national aims, and international threats. A good decision today concerning the offense versus the defense in warfare may be a poor one, even a disastrous one, tomorrow. Critical scrutiny of the conditions and the weapons which influence the balance must be a daily task, and predictions must be made on the warmest evidence.

Many eminent scientists have carefully weighed the evidence at their disposal concerning the offensive-defensive balance in air warfare. Such careful analyses have done much to present a clearer picture of the problem and to permit more accurate deci-

* Harold E. Talbott, lecture at Dayton, Ohio, Dec. 16, 1953, in *Air Force Information Services Letter*, No. 62, Feb. 1, 1954.

sions. But such conclusions are not final, and the scientists would be the last so to assert.*

In his notable book, *Modern Arms and Free Men*,† Vannevar Bush sees the waning of the offensive advantage and a resurgence of the defensive. Recent speeches of his indicate his views are unchanged. Such a condition existed during the first World War when automatic weapons gave the defense a decided advantage, but was reversed in the second World War with the increased mobility coming from improved internal-combustion engines. Dr. Bush attributes the present rise of defensive capabilities to electronic developments.

The accuracy of Dr. Bush's evidence is above reproach, yet further evaluation of the data in the light of military art and its historical context might be helpful. The preponderance of military opinion (and even of scientific opinion) seems to be contrary to that of Dr. Bush. "There is no defense for the atomic bomb" has become almost a cliché. Of course, like all clichés, the "no defense" argument is an oversimplification, but it does express a general feeling that offensive warfare is still dominant. In the words of the late General Vandenberg, "The American people must realize it is impossible to amass or invent an absolute, impregnable defense against bombing attacks by a strong, determined enemy."‡

The essential requirement for offensive warfare to hold its advantage over the defensive is the assurance of delivery. If the atomic bomb gets to its target, the offensive is supreme. Today, this is the crux of the offense-defense question. If delivery cannot be assured, the defensive holds sway.

* A thorough review of this problem has been made by Major General Frederick H. Smith, Jr., Vice-Commander of Air Defense Command, "Current Practice in Air Defense," 2 parts, *Air University Quarterly Review*, Spring and Summer 1953.

† New York: Simon & Schuster, 1949.

‡ "The Truth about Our Air Power," *The Saturday Evening Post*, Feb. 17, 1951.

In the past two wars aerial delivery of explosives was possible at acceptable cost to the offensive effort. Defensive measures against this delivery in the latter stages of World War II and certainly in Korea did not deter the intruders. Have new developments changed this capability of penetration by strategic bombers and tipped the offense-defense balance?

Interception

Interception is dependent upon at least three major variables: electronic equipment, fighters (manned or not), and a system for coordinating the whole effort. These three variables have never been manipulated in such a way as to achieve one hundred per cent effectiveness against determined bomber penetration. In defending England the British developed the tightest system ever achieved, but it took years to perfect, and thousands of German sorties over the United Kingdom were possible before Marshal Goering became convinced that his losses were prohibitive.* Later Goering launched the buzz bombs and Britain's air defense again found itself under violent pressure. For over a month after the V-1s began to fall, interception was poor and most missiles reached London. Through desperate efforts the defense system eventually attained a ninety per cent efficiency. Yet this improvement was gained more through revised techniques and coordinated teamwork than through the introduction of new equipment.

We expected the V-1s to bombard Antwerp after we had taken that city for our principal European port of supply, and hence we set up the most formidable air-raid-defense system ever devised. Nothing was spared to make it work. The buzz bombs came as predicted. Again, over a month of intense operational development was necessary before the efficiency level was

* Vandenberg, "The Truth about Our Air Power."

raised to the point where most of the V-1s dispatched against us were destroyed. And it must be kept in mind that V-1s employed no deceptive or evasive action. They bore straight in at low altitude and were easy targets. Even so, they could not be stopped entirely.

All this indicates that the interception problem is a perplexing one even under the most ideal conditions. It illustrates that what is technically feasible is not necessarily tactically possible. It is technically feasible from the scientific standpoint, for example, to kill all flies with a fly swatter; it is not tactically possible to do so. Intricately organized techniques must be learned by many people and practiced together under combat conditions until the whole air-defense process becomes a smoothly functioning system. This cannot happen overnight and, of course, can never reach perfection. The actual practice of interception involves the probability of technical malfunctions multiplied by countless human fallibilities, and as General Vandenberg wrote: "The diminishing returns quickly reached on what has been aptly called an electronic Maginot Line make the staggering expenditure utterly impractical." *

Electronics can give early warning of air intruders, furnish directions to fighter interceptors, guide the guided missiles, and compute the firing data for guns. Yet the original physical limitation of radar is still with us — line of sight range. It cannot "see" around the curve of the earth's surface. This means that a broad defensive area must have hundreds of interconnected radar stations to prevent gaps in its screen. In the second World War Germany had these many stations and was able to know where our intruding forces were every moment of the time between our take-offs and landings. Their well-nigh-perfect early-warning information, however, did not stop us.

One thing that radar did not have then and does not have now

* Vandenberg, "The Truth about Our Air Power."

is a crystal ball to compute where the intruders are *going to be* several minutes hence. This prediction must be made in order to intercept bombers, and such a device to read the mind of a bomber leader is not likely to be invented. He may turn or he may change speed or altitude. When he alters his route, the interceptor controllers have to throw away their last predictions and make new ones. The defending fighters must be radioed and redirected on a new course that will bring them into contact with the bombers at another point in space where the controllers hope the bombers will be. The bombers may make several changes in course, and each time the air defense must recompute its problem and redirect its fighters.* All mechanical predictions must rest on the patently fallacious assumption that bombers will proceed without change of course, speed, or altitude.

In addition, communication difficulties are ever-present, and bombers can attempt to jam defense frequencies or to transmit false orders to intercepting fighters. Even an automatic fighter must get directions of some sort. A cleverly led bombing force can cause the defenders endless confusion.† The simple facts that air defense must predict future events and that intruding bombers can compound the built-in errors of prediction prevent air defense from ever becoming a mechanical certainty.

Bomber intruders always attempt to exploit the prediction chink in air defense. Deceptive maneuvers and feints to throw the defense off balance are standard practice. Large concentrated formations can "saturate" a defense which is necessarily spread thin in comparison to the massed thrust. Sometimes the bombers are able to attack and withdraw before a tangled defense system gets reorganized. The broader and deeper the defensive area, the further into the future must predictions be

* Vandenberg, "The Truth about Our Air Power."

† Frederick H. Smith, "Current Practice," Part I, p. 13.

projected, multiplying the chances for error. Defending fighters must fly further to make contact with the bombers, and the bombers have that much more time to practice deception.

The invaders, of course, will generally attempt to pierce the weakest link in the defensive radar chain, and the bombers may never be detected until it is too late for interception. It is hard to conceive of any vast continental area being so closely ringed with radar stations as was the confined area of West Germany. There possibly will be gaps in future early-warning nets, and those gaps can be found for the bombers to sneak through.

The Eighth Air Force attack of targets near Leipzig on February 20, 1944, which heralded "Big Week" of the air campaign, presents a striking illustration of bomber deception. German controllers saw our first force, a diversion of three hundred heavy bombers bound for Poland, swing from England out across the North Sea toward Denmark. Believing this a threat to Berlin, they not only kept their northern fighters in place but dispatched seventy fighters from southern displacements to intercept. Eighty minutes later our main force of seven hundred bombers thrust at Holland on a direct route to the targets near Leipzig. Luftwaffe radar stations soon reported its huge strength, and before the seventy fighters sent north could intercept our diversionary force, the controllers recalled the interceptors for use against the main force.

Some ninety local defenders attacked our main force on the penetration to Leipzig, but they had to break off and refuel about target time. The seventy fighters recalled from the north hardly got into the fight before running out of fuel.

German controllers, logically assuming a reciprocal withdrawal of our air force, marshaled all the refueling fighters together with many others along our penetration route ready to swarm upon us on our way home. But we did not return that way. Instead we turned southwest, flying deeper into Germany

after bombing, and detouring in a wide arc south of the Ruhr. Could we have been bound for bases in Italy? The decision was pondered. By the time German defense commanders discovered our purpose and frantically ordered their assembled fighters south and west, we were well on our way. The ruse had delayed judgment just long enough. Only an insignificant number caught the tail of our bomber column as it withdrew northward across the English Channel.

On this occasion it was technically feasible for the air defense to attack the intruders with over a thousand fighters. Warning was adequate and the fighters were within range. Yet little more than a hundred fighters made contact for sporadic and ineffectual attacks. Tactically, the defense collapsed.

It is hard to see how modern improvements in early-warning devices will materially reduce the ability of bombers to penetrate. No machine or computer will detect a diversion or a contemplated change in withdrawal route such as was executed on the Big Week mission to Leipzig. This is in the exclusive province of air strategy and is a matter for human judgment. Early warning achieved by England and Germany during the second World War was rapid and precise. Yet this did not deter intruders. Perfect early warning cannot result in perfect air defense simply because human predictions and human coordination are always subject to error.

The interception sequence involves detection, identification, tracking, warning, scrambling defenders, vectoring defenders, and assisting defenders in every electronic way possible to lock on the enemy and destroy him. New devices and systems continue to improve each link in the sequence, but the inherent weaknesses in air defense cannot be overcome. Human limitations are always present. Writing in the *Air University Quarterly Review*, the vice-commander of Air Defense Command, Major General Frederick H. Smith, stated:

History indicates that defense has continually vied with offense in relative strength and capability. Today, with the possibility of the whole world succumbing to devastating atomic blows, we cannot take a chance on a defense which has slipped behind the offense.

Not being able to achieve an air-tight defense, we should strive for one which would be designed to "assure survival of our offensive force and the nation's will to fight." *

It has often been postulated that a nation will continue to fight as long as it feels confident it can retaliate slightly better than tit for tat. With our striking force grounded, high civilian casualties and severe damage to our cities might lead us to accept enemy terms. But with a strong right arm able to deal the enemy a crippling blow, our courage will be buttressed to endure more punishment. On the other hand, if our strong right arm, like Japan's home army, could not prevent utter destruction of our cities, we would lose confidence in it regardless of how sorely it might hurt the enemy. Hence a balance must be achieved between our defensive left arm and our offensive right arm. Neither air defense nor air offense should be exclusively relied upon, but the two forces in concert can provide us with the optimum chance for success.

The belief that radar has tipped the offensive-defensive balance in favor of the defense also overlooks the fact that radar is not exclusive to the defense. In reality radar has advanced the offense at a comparable pace. Modern bombers are assisted in the conduct of their missions by a maze of radar aids and countermeasures.

General Weyland on Korea

It is true that B-29s in Korea gave up daylight formation bombing after taking losses from MIG-15s. But an analysis of

* Smith, "Current Practice," Part II, p. 39.

these missions will quickly indicate why any losses at all occurred. Targets were located near the Yalu and our fighter escorts were denied penetration beyond this line on the ground. Enemy jet airfields went unmolested. Fighter forces are most vulnerable when leaving the ground and forming up for battle. The MIG's formed up with impunity and climbed in peaceful air to vantage points above the bombers. Then they struck and withdrew to their sanctuary. At best our escorting jets had little time to do more than chase them part way.* This was a re-emphasis of the escort doctrine developed in World War II: close-in escort (high cover) is not as effective as a roving escort in the distant van and on the flanks which gives the initiative to the escorts and disrupts interception tactics.

General Otto P. Weyland, who commanded the UN air forces, has stated that the targets left for strategic attack were not sufficiently important to endanger the loss of even a few B-29s. So he decided to operate the big bombers only at night, thus conserving his force in case more productive missions were assigned. General Weyland does not admit that daylight operations of bombers are impracticable under normal conditions of war, although in this particular instance losses were prohibitive when weighed against military results.† We can assume that daylight operations of bomber formations are still in the cards and can survive jet attacks when artificial restrictions do not give a preponderant advantage to air defense. When targets are vital and when intruders carry high-yield munitions capable of great destruction, higher loss rates will become more tolerable.

Jets will undoubtedly destroy bombers, and on some missions the losses may even be prohibitive, as they were in Korea. But at the present stage of technical development it can be confi-

* General Otto P. Weyland, Commander, Far Eastern Air Forces, "The Air Campaign in Korea," *Air University Quarterly Review*, Fall 1953.

† Lecture, Air War College, Air University, Maxwell AFB, Ala., Jan. 27, 1954.

dently predicted that bombing aircraft will return to their targets with new tactics and eventually drive through to all assigned targets just as before.*

Writing in 1946, Marshal of the Royal Air Force Viscount Trenchard said, "War cannot be won by the defense alone and we must, therefore, be prepared to hit as well as to defend, both to strike at the source of the attack upon us when we must, and to act as a deterrent to any potential aggressor."†

Prohibitive Losses

The glib assertion sometimes heard that prohibitive losses from air defense will stop bombers from invading requires only brief examination. On several occasions over Germany during the war our losses were unacceptable, and if the shooting down of B-17s and B-24s had continued at the same intensity, we might have had to alter our war strategy drastically. A highly organized defense system employing well over a thousand operational fighters opposed us. When we were hurt too badly, we devised new tactics and tried again. After the debacle of Schweinfurt a system was developed for fighter escort. Taking our calculated risks and sometimes more, we fought out the air battle. There was no easy nostrum to the victory. The price was fifty thousand dead airmen. And the air war did not stop when prohibitive losses were suffered.

The RAF took prohibitive losses in its daylight operations against Germany between 1939 and 1941. British bombers were inadequate for the particular tactics then employed. After switching to night bombing, the RAF no longer suffered such losses and became an effective force.

* Vandenberg, "The Truth about Our Air Power"; also, Marshal of the RAF Lord Tedder, in address before Air League of the British Empire, London, Oct. 6, 1953.

† "Air Power and National Security," reproduced by Air University, Maxwell AFB, Ala., Oct. 29, 1946.

Prohibitive losses can seldom be determined in advance with any accuracy. After a hotly contested battle prohibitive losses must be estimated in an involved command decision. Many aspects of the conflict are considered: the morale of the airmen, the will of the leaders, the rate of crew and airplane attrition, the effectiveness of replacements, the damage to the enemy, and even the morale at the home front. All of these factors are significant, and any one may influence the commander's decision. It is essentially the age-old question of how much we can take. Who knows the limitation of our courage? We cannot measure it solely against the characteristics of mechanical fighting equipment.

We do know that in the short history of air warfare, no major air operation has ever been completely destroyed by its enemy. Several have been badly handled, but invariably some aircraft escape. It is hard to corner an airplane and cut off its retreat. Even after the great losses of the Japanese at Guadalcanal, Hollandia, and the Marianas, of the Germans at the Battle of Britain and Tunisia, of the AAF at Ploesti and Schweinfurt the defeated were able to put up airplanes shortly thereafter and continue the air war. There were instances when small formations were completely wiped out, as at Ismuiden, Holland, when ten American B-26s were all shot down, but those were limited efforts and the loser was always able to strike back in force.

Some people insist that a fighter escort is always necessary to assure the success of bomber attacks. It is true that the Eighth Air Force bombers over Germany finally had to be escorted by fighters and that fighters have not yet been developed with integral range to escort the B-36. Aerial refueling of fighters, however, is rapidly solving this problem. Tanker squadrons are based around the world, and jets fly nonstop across either ocean.* Even so, escort does not seem to be absolutely essential for mas-

* *Armed Forces Talk*, #464, May 15, 1954, p. 8.

sive attacks. The RAF night tactics and the B-29 operations around the clock against Japan were successful without escort. So, too, were the night operations in Korea. A fighter escort is always *desirable* to reduce the risk involved in any air assault and future developments may make an escort mandatory, but at this writing the lack of an escort is hardly a cogent argument against strategic bombardment. If anything, the current situation places the defense in greater peril than ever before.

The Increased Power of the Offensive

What causes the arguments against the air offensive to dissolve into utter vacuity is the undeniable fact that one bomber today is the equivalent in destructive power of two hundred plus bombers yesterday.* And with thermonuclear weapons, the increased power of the offensive has become astronomical. "A single air group," the President said, "can deliver to any reachable target a destructive cargo exceeding in power all the bombs that fell on Britain in all of World War II." †

If strategic bombing was ever effective, it is at least two hundred times as potent today. Can we afford to ignore such odds? Will our enemy overlook them? These odds are real probabilities, not guesses. The National Security Council, a civilian body at the highest level of executive government, has placed its confidence in the dominant nature of offensive air power. If the public fails to support fully this wise policy, it will be because the public has not seen the overpowering evidence that leads to this inescapable conclusion. We cannot tempt Armageddon by ignoring the dread facts of our age.

The national military policy charges the United States Air

* H. H. Arnold, in *One World or None*, Dexter Masters and Catherine Way, eds., New York: McGraw-Hill Book Co., Inc., 1946, pp. 26-32.

† "Atomic Power for Peace," address to the General Assembly of the United Nations, December 8, 1953.

Force with the primary mission of strategic bombing which must assure our national survival in an all-out war.* The Strategic Air Command is specifically organized to carry out this mission. Considering what is at stake, this force would warrant a lion's share of our national defense effort. Yet we build this basket for our eggs with about five per cent of the total United States defense establishment. † This is hardly having all our eggs in one basket.

If we accept the premise that air operations favor offensive employment, we must relate this to national objectives before adopting the premise as a military policy. There can be no question that the United States abhors aggressive war. Hence our national policy is essentially defensive with respect to the outbreak of war.

It may seem paradoxical that we could have a defensive national policy backed by an offensive military doctrine, but the paradox resolves itself if one considers the sequence of events: a defensive policy until the decision is made to employ force, then offensive military operations. This is in essence the idea of massive retaliation. After being goaded to war, we strike back with great strength like a flashing sword of vengeance. A defensive-offensive, or counterattack, policy is regarded by some military historians to be the strongest form of war. ‡ By this same reasoning it likewise becomes the most successful deterrent to war.

The First Blow

The question immediately arises, if the deterrent fails can we withstand the first blow? Will we have strength left to respond?

* Key West agreement as published in Air Force Manual 1-1, *Joint Action Armed Forces*, Washington: U.S. Government Printing Office, 1951, pp. 17, 18.

† John McDonald, "General LeMay's Management Problem," *Fortune*, May 1954, p. 103.

‡ Colonel V. J. Esposito, speech to American Historical Association, Chicago, Ill., December 28, 1953.

The answer to this must rest on faith in our principles of honor and decency. We must! To launch a "preventive" war would negate all the deep tenets of our culture. Victory would be highly probable, but without honor. In the end, we could not live with ourselves, and jungle principles soon would dominate mankind again. If free democracy, the greatest hope of mankind's ultimate salvation, should stoop to treachery, our noble *raison d'être* would be lost.

The physical threat of an enemy must never let us forget the treasured principles for which we live and fight. As Napoleon reiterated, the glory of our arms must always be a paramount objective.

So if we must withstand the first blow, what are our chances? We might not, for example, have to wait for hydrogen bombs to rain on our cities before striking back. It would likely take a force of at least a hundred bombers to prostrate us,* and if our intelligence system is alert, a planned attack of this magnitude is usually telegraphed. We had enough information to intercept the Japanese fleet before it hit Pearl Harbor, and that was before we had a Central Intelligence Agency. We failed then because we just could not believe it would happen. It is doubtful if we shall soon again be so mesmerized by such unreasoning confidence in peace. Once enemy intentions are clear through overt acts of aggression, retaliation is morally acceptable even before we suffer the loss of several cities.

Such a retaliation is the most effective form of air defense, as Secretary of the Air Force Talbott has indicated. First, our effort should be to destroy hostile delivery agents on the ground together with the enemy delivery facilities. Concurrently we should attempt to intercept and destroy all airborne raiders as far from our continent as possible. Finally, continental and close-in defenses would take over as a last ditch. These last-resort measures

* Vandenberg, "The Truth about Our Air Power."

would be the least effective because of the shortness of time left to halt the invader. The factor of time, of course, is the essence of the over-all defense.

If the attack comes in force, some intruders likely will get through. It would be reasonable to expect inaccurate bombing on an initial attack, however, and if target cities are evacuated in time, there should be a minimal loss of life. But without instant retaliation complete annihilation of our country most assuredly could be possible. *With* massive retaliation we can and we must stand up under the first attack.

Once we have achieved air dominance, the enemy has no recourse but to surrender. It would not be necessary to wipe out all his cities to convince him of this. The obvious capability to do this during a state of total war should be sufficient to force him to terms. But suppose he is stubborn and continues to advance with his surface forces. What then? Then we shall be obliged to lay on a massive air siege. Punitive air action can be directed against his national resources until he comes to terms.

Air Siege

Offensive military operations may overcome a nation overtly either by invasion and capture or by siege and attrition. Clausewitz favored the invasion and capture method as being the more violent and rapid form. Once the opposing army was destroyed, invasion and capture were unrestricted. Siege and attrition were slow and costly processes common to the pre-Napoleonic era. A third means of the offensive is psychologically inspired, and covert. Terror or loss of hope may cause an internal collapse without either invasion or siege.

In the defensive category, states have been known to defeat an invader by standing behind static barricades until the invader wears himself so thin he either falls exhausted from the effort or

fears a successful sortie. Success of this form is noted in feudal times in the abundance of castles and later in city fortifications. But more often the outcome was a *tour de force* with neither belligerent gaining an advantage. Gunpowder weakened this form of war, while oil and atomic power have abolished it altogether.

The invasion and capture method, besides having been advised by Clausewitz, has a political component. During the nineteenth century when imperialism was a relatively respectable *casus belli*, control of the land seemed necessary. Imperialism is still with us today on the other side of the Iron Curtain, while the free nations are granting independence to former colonies. Thus free nations do not have imperial aims and this component of the invasion and capture doctrine is missing. Acceptable conditions of peace, not territory, are the usual aims of free nations today.

The fantastic technical progress in our century has made it mandatory for us to consider the air siege as a primary form of future war. Strategic bombing is a tactic of siege warfare, although it has invasion and psychological ramifications; its invasion characteristics derive from its effort to secure air superiority, analogous to the surface need for destroying an opposing army as a prelude to invasion; its psychological aspect comes from the terror associated with bombing and from the ability to communicate directly with the people by leaflets and loudspeakers. But only in emergencies (or by artificial restrictions) should strategic forces be diverted to strike at armies in the field or directly to support our own armies, for this would raise the siege.

Bombardment of an enemy heartland, when done in force, not only effects a siege, but rapidly accelerates its crisis. Not only is transportation disrupted to the point where food cannot be distributed, but all elements of the national economy are critically damaged in a short time. There is no long waiting for the econ-

omy to run down as in surface siege, during which supplies may be consumed over months of time. There need be no expectation of an enemy sustaining himself over a protracted period through self-sufficiency. Air bombardment destroys not only much of the reserves, such as oil, steel, and manufactured goods, but the means to use the reserves, such as transportation, communications, and power. It does more than simply destroy war potential. In absolute war it paralyzes the nation and destroys it as a social entity.

The concept of strategic bombardment (or air siege) is nevertheless still being debated. Major wars in modern history have been won primarily through open combat between armed forces as a precondition for invasion and capture. Moreover, the last World War was not won solely by air siege, but by a combination of siege and combat. Even though the air siege is generally considered to have been a decisive factor, there remains reasonable doubt that it would have been decisive without the support of surface combat. Indeed, air siege would not have been possible against Japan without the surface combat that provided air bases. Vastly increased aircraft ranges and atomic munitions, however, have reduced materially the limitations which set the conditions for much of the surface combat in the second World War.

In the second World War lengthy build-up and operational periods were necessary to realize the effectiveness of air siege. Approximately two and one half years were needed to create the air power and its logistical support before effective air siege could be commenced. During this build-up period combat between conventional forces was, of course, the order of the day. If for no other reason, orthodoxy held sway because the wherewithal to conduct air siege was lacking. Once large-scale bombing began, the limitations of air power's destructive force necessitated sustained operations—repeated attacks to destroy a

system of industry that could not be fatally damaged on one operation and that could be repaired between attacks through the use of other industrial systems. It was a race between destruction and reconstruction with the edge only slightly in favor of air power. Bold claims of some enthusiasts that the enemy would be quickly subjugated by air attacks were not confirmed, for the enemy fought on tenaciously.

Economists reasoned that if one key target system, such as the ball-bearing industry, could be cut out of the enemy nation and could be kept demolished through sustained operations, it would cause the collapse of a wide portion of other industry dependent upon the key product of the destroyed system. This scheme was tried but not proved. Target systems were often changed before any one system was significantly damaged. U-boat repair and construction, aircraft engines, air frames, ball bearings, oil, and transportation were a few of the major systems attacked by the AAF over Germany. Postwar evidence indicated that oil and transportation destruction severely ruptured the German economy, but these systems were not seriously attacked before the last twelve months of the war.*

The RAF generally attacked urban industrial areas in a psychological campaign that was slow to bring results, although "by the beginning of 1944 three fourths of the German people regarded the war as lost."† The attendant results of RAF bombing on all industrial systems (according to British surveys) were as effective, if not more so, than the target-system bombing of the AAF.‡ As noted in the US Strategic Bombing Survey reports, when German industry collapsed, no single target system was exclusively responsible; rather, a widespread disintegration of all industry had occurred.

* USSBS.

† USSBS, p. 96.

‡ Sir Arthur Harris, Marshal of the RAF, *Bomber Offensive*, New York: The Macmillan Co., 1947, pp. 221-224.

From this it might be concluded that the most effective air siege will result by attacking concurrently every critical element of an enemy's economy. There is every indication that this will cause a general disintegration of all industry, which will, in turn, prevent reconstruction. Oil, transportation, power, vital end products, and weapons factories, if destroyed concurrently, would leave a nation in such a devastated state as to preclude repair, since the capability for repair would be lost as well. When we could only use bombs of relatively impotent TNT, this concept was questionable because of the limited destructive power available to us, and we were compelled, therefore, to look for panacea targets, Achilles' heels, and short cuts. Now we are rapidly approaching the age of atomic plenty.* Destructive force is almost unlimited. Today the target system may be the over-all national structure.

If all critical industrial systems could be destroyed at one blow, so that recuperation would be impossible within any foreseeable time, there seems little question but that a nation would collapse just as surely as a man will when a bullet pierces his heart and his circulatory system is stopped. Produce and fuel would cease flowing. In a matter of days the prospect of starvation would be faced in urban areas. Any attempt to conduct warfare of any sort would immediately break down through an absence of logistical support. Napoleon's Grand Army, it should be noted, was forced to retreat from Moscow because it was too large a force to live off the country. And Sherman's force of sixty thousand was in Georgia only about one month before it began to get supplies by sea. Large modern armies have not found it possible to live off foreign countries, whether hostile or friendly. An army in the field with a life of thirty days or less, facing starvation, realizing that the loved ones at home are likewise facing famine, and seeing no prospect for future recovery,

* President Eisenhower's UN speech, December 8, 1953.

is not a force to fear. No army in history has been known to fight with a vacuum at its rear. The utter collapse of the Russian Army on the Eastern Front in the first World War is an example to be considered. Such an army will most certainly lay down its arms or engage in fratricidal warfare because all cause for hope, all purpose in fighting for the motherland, will have been lost.

Changing Principles

In conceiving doctrine for the future it would be well to keep foremost in mind that doctrinal change is inevitable, and that no past doctrine can be applied again in precisely the same way as before. Reverence for constant principles should be looked upon with suspicion, because such reverence tends to crystallize thought into fixed patterns. Then principles are used to rationalize desires rather than as tools of logic.

The so-called principles of war appear under different guises in every reputable publication. Even in well-indoctrinated institutions, such as the French Army of the latter nineteenth century, differences of opinion exist not only as to the relative importance of these principles but even as to the validity of certain ones.* About all that can be said is that military experts believe principles exist, just as psychologists believe principles of human motivation exist, but no two lists are in agreement, nor is unanimity of expert opinion found on any single principle.

A former president of the Naval War College, for example, questioned the offensive principle on the basis of an analysis of the Battle of Jutland. The British Admiral Beatty, following the offensive principle, steamed forward to do battle with the German battle-cruiser squadron. Precious daylight was sacrificed, and the British cruisers took such punishment that they later allowed the German High Seas Fleet to escape in darkness. Had

* See Introduction.

Beatty been less eager for battle and more concerned with surveillance, until the enemy had been lured into contact with the British Grand Fleet, the outcome could have been far more decisive. Thus was thrown away a great opportunity by adhering rigidly to a principle.*

Napoleon cautioned always to plan on enemy capabilities rather than presumed intentions and to keep flexible, adding that plans "may be modified ad infinitum according to circumstances."† Although he believed that war could be better understood by study, Napoleon never listed any immutable principles, and his one hundred and fifteen maxims were abstracted by others from his rather amorphous writings.

Identifying fixed principles of war becomes as fruitless a task as determining fixed traits of leadership. Both are a function of the situation in which they are applied and can only be examined in relation to that particular situation. The validity of a principle in a future situation will be in proportion to the similarity of the future situation to the past situation from which the principle was drawn. If the new situation is radically different, as Jutland was from Sedan, the application of certain principles might lead to error. Before deciding on an employment principle the total situation must be given thoughtful scrutiny.

Doctrine for the Future

Looking carefully at the future, an advisory commission to the President in 1947 known as the Compton Board reported that:

The speed and force of attack make imperative the maintenance in a constant state of readiness of a counterattack-

* Vice Admiral Richard I. Connolly, "Principles of War," lecture to Air War College, Air University, Maxwell AFB, Ala., August 28, 1951.

† *Maxims of Napoleon*, 5th ed., Librairie Militaire de J. Dumaine, 1874. Translated by Colonel S. C. Vestal and First Lieutenant F. J. Brunow, Historical Section, Army War College, May 1930.

ing force that can retaliate instantly with the most modern and powerful weapons. Never again will our Nation have months of relative immunity after the outbreak of war to mobilize, train, and equip an effective fighting force.*

During the same year another Presidential commission headed by Thomas K. Finletter made a similar diagnosis of our military problems. This group urged that the "Military Establishment be built around the air arm," for "our military security must be based on air power."† One would think that common conclusions from two separate civilian groups who dispassionately examined the defense problem should have created some adjustment in thinking, but little change was manifest until the massive-retaliation policy was announced some years later.

A brilliant wartime leader has remarked that mass retaliation "finds no justification in human experience as an exclusive and self-sufficient means of victory."‡ Nowhere in the various policy statements made regarding the massive-retaliation doctrine can any reference be found to its application as "an exclusive and self-sufficient means of victory," although there is evidence that the dominant nature of this cataclysmic force is being officially recognized.§ As Secretary of Defense Wilson clearly said, "There is still need and will continue to be need for increasingly effective land, amphibious, antisubmarine and other forces."|| Nevertheless, in his message to Congress of January 21, 1954, the President stated that the budget "points toward the creation, maintenance, and full exploitation of modern air power."

* *A Program for National Security*, Washington: U.S. Government Printing Office, 1947, p. 8.

† *Survival in the Air Age*, Washington: U.S. Government Printing Office, 1948.

‡ Major General James M. Gavin, "Cavalry and I Don't Mean Horses," *Harper's*, April 1954, pp. 54-60.

§ Speech of Secretary Dulles, January 12, 1954.

|| *Speaker's Guide for Service Spokesmen*, Department of Defense, Vol. V, No. 1, p. 7.

The course of prudence, however, is not to build three self-sufficient services, each planning to win a war with different doctrines. The major strategic reorientation toward war has been announced as a national policy. In the words of Secretary of Defense Charles E. Wilson, we shall now give "proper weight to new weapons and equipment."* This has been arrived at through long and sometimes halting evolution of doctrine, and through exhaustive study and debate among experts in every field of the military art. Finally, it must be kept in mind, the select civilian National Security Council resolved the debate. The decision does not ignore the peril of an atomic attack on us, but faces it squarely.† Any decision to emphasize surface warfare would indeed invite air attack. The decision is not an all air-power decision by any means but merely a decision to emphasize air in this age as the fulcrum for our military policy.

The doctrine for the future, therefore, has been established. For the first time in our history the predominant nature of air power has become national policy by official recognition. This does not mean that the military establishment is organized yet with this relative emphasis, but at least the first step has been taken toward full realization of this doctrine.‡

Moreover, the offensive capacity of air power is highlighted over its defensive capacity. Air defenses will be built up to the highest effectiveness possible without detracting from the attack capacity,§ which must provide the instant and massive retaliation when and if needed.

Military operations will be guided by a doctrine of maximum

* *Armed Forces Talk*, #464, May 15, 1954, p. 8.

† In Marquis Childs's syndicated column, "Washington Calling," of February 6, 1954, he implies that the new policy will encourage attack, which is analogous to saying that a thug would prefer an armed man as a victim rather than an unarmed one.

‡ President Eisenhower's State of the Union message, January 17, 1954, *Armed Forces Talk*, #464, May 15, 1954, pp. 8, 13.

§ State of the Union message, January 17, 1954.

celerity, and the steadily advancing speeds and ranges of weapons make celerity increasingly possible. General O'Donnell flew his B-29s from California to enemy targets in Korea in five days. Jet bombers in 1954 are flying from California to Europe in less than a day. The new B-52 will be able to make two round trips between Guam and Tokyo in less time than the B-29s made one round trip during the last war. This doubling of range in ten years, combined with a thousandfold increase in firepower, provides strong sinews to our policy of celerity.* Centrally located forces will be prepared to strike swiftly wherever needed.† And to assure that the human factor responds with equal celerity, our military establishment must consist of a professional corps.‡

This policy undoubtedly involves a calculated risk, but the risk is less than one which would give an aggressor the initiative by default.

* General Nathan F. Twining, Chief of Staff, USAF, "We Must Choose the Weapon," *Contact*, U.S. Air Force Institute of Technology, Dayton, Ohio, March 1954, pp. 23-25.

† State of the Union message, January 17, 1954.

‡ State of the Union message, January 17, 1954.

7. National Policy and Military Doctrine

*Truth crushed to earth shall rise again;
The eternal years of God are hers;
But Error, wounded, writhes in pain,
And dies among his worshipers.*

WILLIAM CULLEN BRYANT, *The Battlefield*

LOCAL defenses will always be important," Secretary Dulles cautioned. "But there is no local defense which alone will contain the mighty land power of the Communist world. Local defenses must be reinforced by the further deterrent of massive retaliatory power." * The strategy of counterattack loses its surprise value when directed at the strength of the aggressive attack. But when an aggressor nation is unable to foresee from which quarter a counterattack may materialize, it will probably be constrained from initiating an aggression. No nation is strong everywhere, and a counterattack directed at vulnerabilities would be most unwelcome. It is this factor of uncertainty for the aggressor that can switch the initiative to the defender. We cannot let the potential aggressor "prescribe battle conditions" that give him the advantage.† If he is "glutted with manpower," it would be a course somewhat less than sensible to follow a strategy primarily dependent upon manpower.

* Speech, January 12, 1954.

† Speech, January 12, 1954.

No celerity in our retaliation would be possible, however, if we were to place sole reliance on a devastating strategic attack. This would be but one method of retaliation, and hence an inflexible strategy. All-out strategy attack is likely to be the last method that would ever be used, and then only if our survival were gravely threatened. Hence the necessity for having lesser military forces designed to achieve limited objectives.

As Chairman of the Joint Chief of Staff Admiral Arthur W. Radford said, "Our planning does not subscribe to the thinking that the ability to deliver massive atomic attack is, by itself, adequate to meet all our security needs." * American salvation can be achieved by lesser means than total war, but for this to be possible it is absolutely mandatory that we have the capacity to gain swift victory in total war. Thus the major focus for our military policy must be related specifically to survival, and hence this becomes the "basic decision" of the National Security Council.†

No other decision ever made by our government in peacetime has faced a vital national-defense problem so squarely. By adhering rigidly to moral principles, by carefully weighing the clear issues, and by taking full account of military art, a policy has been promulgated which is in harmony with advanced military doctrine. People, however, are eager for specifics. Just how can a limited threat be handled without plunging the world into an atomic holocaust?

The Spectrum of Weapons

With the development of atomic weapons, firepower can be packaged to provide almost any degree of force desired. From

* *Air Force Magazine*, April 1954, p. 26.

† Speech of Secretary Dulles, January 12, 1954.

the .45 caliber shell of the pistol to the thermonuclear bomb which is equivalent to several megatons of TNT,* a whole spectrum of weapons is appearing, each one yielding a different degree of firepower. No longer are hosts of men necessary to achieve concentrated firepower at any one place. Selection of the appropriate weapon for the task will permit the desired fire to be laid with relatively small military organizations as compared to the past. Arbitrarily restricting the use of nuclear weapons will obviously return warfare to the concept of multitudes and give a distinct advantage to that nation able to mobilize the greatest manpower. If, for example, the English at Agincourt had agreed not to use their deadly longbow because the French had not yet acquired knowledge of its employment, the French with their preponderance of numbers would have assuredly won the day.

The spectrum of weapons with varying explosive yields promotes military efficiency in any conceivable military task. The so-called tactical use of air power, where the objective is to destroy a specific surface force, can be greatly enhanced by free selection of any weapon from the spectrum. From a purely military standpoint, high-yield weapons can greatly speed the outcome of a surface warfare.†

Even the tightly circumscribed air war fought in Korea opened new doors to the employment of air forces in wars where terms favorable to our side are our sole objects. "The war to date," wrote General Weyland, "has represented a short step in the direction of using air power as a persuasive force to attain objectives."‡ The cumulative effects of simultaneous attacks on enemy air forces, surface forces, supplies, communications, and

* President Eisenhower, "Atomic Power for Peace."

† Colonel G. C. Reinhart and Lt. Colonel W. R. Kinter, *Atomic Weapons in Land Combat*, Harrisburg, Pa.: The Military Service Publishing Co., 1953.

‡ General Weyland, "Air Campaign in Korea."

control systems, including industrial, social, and political control systems, in conjunction with propaganda, provide the psychological effect which will in time terminate a local war.*

Air Battle

Such an air siege is predicated, however, on air victory, and air victory is not fully consummated until fighting has ceased. Air battle, as opposed to air siege, is the process of overcoming enemy air opposition to the degree that air siege can be undertaken without debilitating losses to our own air force. The objective of air battle is the opposing air force, which must be subdued to a degree that will permit concentration of our own air force upon the later objective of bringing the enemy to accept terms. Thus, as in land operations where the opposing army must be defeated before invasion and capture become possible, air operations must concentrate on enemy air power before full weight can be applied to air siege. This sequence of priorities applies to something less than absolute war, however, for in absolute war it is conceivable that siege can be made so devastating with massed nuclear weapons that air battle might be avoided.

Air battle is not decided in a few great clashes but over a long period of time, when attrition and discouragement eventually cause one side to avoid the invading air force. Like the trench warfare of the first World War, the effects of air battle are not readily discernible. Nevertheless, a time comes when, through many clues and a marked reduction in losses, one side senses it has achieved air superiority.†

After the successful operations of Allied air forces over Germany in February 1944, known as the Big Week, General Carl

* Weyland, "Air Campaign in Korea."

† General Carl Spaatz, "Strategic Air Power: Fulfillment of a Concept," *Foreign Affairs*, April 1946.

Spaatz, who commanded the United States' strategic air forces, sensed that air superiority had been wrenched from the enemy. In the space of six days massive and deep penetrations had been made to fifteen large industrial areas throughout the enemy nation by some six thousand bombers. Bombing accuracy was excellent, but it was inconceivable that bombing results would have any immediate effect on the Luftwaffe. Allied losses, however, were far less than had been expected, amounting to about six per cent for the six-day battle. As a consequence, Allied morale soared while enemy morale plummeted. Extensive bomb damage caused consternation in German industry, and the obvious inability to halt these massive Allied depredations left Germans with a feeling of futility. Industry was dispersed and reorganized under Albert Speer. By dint of feverish activity it recovered within two months. This indicates that the material effects of Big Week were far from crippling. Yet the emotional effects were so far-reaching as to cause a major turning point of the war.

Claims of enemy aircraft destroyed by American forces totaled six hundred, which according to captured German records was an accurate figure,* and these records also indicate a decided upturn in German losses for subsequent months.

An abrupt change in German strategy occurred. "The enemy now refused to commit himself to a policy of full-scale opposition" to the bombing campaign. It was a policy of "conservation of strength and it conceded to the Allies the vital point of air superiority."† This change in attitude was apparent in the subsequent behavior of enemy fighters. They more often concentrated on stragglers and cripples, letting the main forces go unscathed. On at least one occasion an enemy pilot was seen to bail out

* Craven and Cates, *The Army Air Forces in World War II*, Vol. III, pp. 30-66.

† Craven and Cates, p. 47.

when an American fighter approached, and this occurred before the American fighter pilot had fired a single round of ammunition. Such clues added to the evidence that the enemy air force was psychologically beaten.

Dominating an enemy air force in this way, however, requires a sustained effort. An enemy air force can seldom be totally destroyed, and our will must continually be exerted to keep it subdued. Consequently, the antiair objective of air battle can never be entirely relinquished until the armistice. But when air superiority is sensed, as after Big Week, the emphasis of objectives may be shifted to air siege, or air support of surface forces, if that be the prescribed strategy.

Dual objectives are pursued concurrently by air operations — antiair to achieve air superiority, and air siege. There is no sharp dividing line between these objectives in point of time, and each complements the other. Bombing which threatens sensitive enemy establishments induces air defenders to rise for battle. Thus both objectives are being prosecuted on the same attacks. As with the surface doctrine of Clausewitz, overpowering of enemy air forces must be the prerequisite to any other air activity. Air forces must be assured of “living in the air” before they can concentrate on other operations.

Facts about the Air in Korea

In September 1950, Red jets began to appear in Korea. The build-up of Communist air power was phenomenal in its proportions. This occurred because the bombing of Operation Strangle was punishing Communist surface forces and seriously restricting their offensive capabilities. So the enemy set out to challenge our air superiority. The Communists began to build a number of jet air bases in North Korea as part of their plan to break the grip of Operation Strangle. We systematically bombed these

bases until the end of the war as a preventive feature in the air battle, and the swarms of MIGs were confronted by our outnumbered F-86s over the Yalu. By the end of hostilities, the ratio of individual victories was over 20 to 1 in our favor. Although the enemy force was not destroyed, it was so morally dominated as to assure us acceptable air superiority.*

The charge that air forces are only able to conduct all-out war of the atomic type, that limited wars must be handled exclusively by troops on the ground, cannot be upheld by the facts. Such a false representation of air-power capabilities insidiously undermines American strength by leading us to believe in and adopt methods of warfare which will give communism an advantage.

Handicapped by the unrealistic restrictions placed on air operations during the Korean conflict, air forces nonetheless succeeded in being the crucial influence in that war. The true story of these air operations has been told by General Otto P. Weyland, Commander, Far Eastern Air Forces, in the *Air University Quarterly Review*.†

No elephant guns were used on rabbits when pilots of the Far East destroyed 1210 bridges, 963 locomotives, and 82,920 supply vehicles, not to mention 1020 enemy aircraft, 839 of which were MIG-15s. Meanwhile, in air combat only 58 USAF Sabre-jets were lost.‡ Supply movements were a nightmare for the enemy, to paraphrase Secretary Talbott, and 266,000 enemy troop casualties were inflicted.§

The last two years of the war, according to General Weyland,

* General Hoyt S. Vandenberg, “Air Power by Proxy,” *Air Intelligence Digest*, Vol. 5, No. 1, January 1952.

† Weyland, “The Air Campaign in Korea.”

‡ *Air Force Information Services Letter*, Supplement No. 62, Feb. 1, 1954.

§ *Air Force Public Relations Letter*, Vol. VII, No. 12, August 14, 1953; also, “Korea — Proof of Air Power,” *Planes*, published by Aircraft Industries Association, August 8, 1953.

and supported by General James A. Van Fleet,* were a politically enforced stalemate on the ground. Surface forces were prohibited from advancing because of the fear that such an advance would extend and enlarge the war. The only extended offensive activity open to UN forces was air action between the front lines and the Yalu, using World War II types of munitions.

This limited air action was vigorously undertaken until rail traffic in North Korea was cut to five per cent of its prewar level. Truck and A-frame transportation were able to keep the dug-in Communist horde supplied for defensive stands, but denied them the supplies necessary for a general offensive. Since, according to Van Fleet, political restrictions prevented our ground forces from taking the offensive, a stabilized front obtained for two years. The UN objective was *not* then to take and hold ground. The objective was unquestionably to force the Communists to terms acceptable to us. The cost of the war to them caused by attrition through our air attack was what led directly to the conclusion we sought.†

Could this have been done without ground troops and the heartbreaking losses of American infantrymen? In all probability the very same result could not have been achieved. True, South Korea would have been punished as sorely as North Korea. But the North Korean bombing was suffered by people who had come under the yoke of communism through no fault of their own. Many are undoubtedly still friendly to democracy, and it is unlikely that bombing will turn them to communism unless they are already disposed to lean in that direction, any more than bombing of France in World War II caused Nazi converts. We might bear in mind that only fifty per cent of all Allied bombing in Europe during the second World War struck on

* "The Truth about Korea: From a Man Now Free to Speak," *Life* Magazine, May 11, 1953, pp. 127-142, and May 18, 1953, pp. 156-172.

† General Weyland, "Air Campaign in Korea."

German soil. Most of the other fifty per cent hit objectives in countries where the populations were friendly to our cause.

We bombed North Korea without compunction because only in that way could we make the Communist masters suffer. This is war, air or ground. In retreat, we destroy our *own* transportation, supplies, industries, and communications to prevent them from falling into the hands of the enemy — even though we may leave behind thousands of Americans to suffer. The Shenandoah Valley campaign and Sherman's march through Georgia attest to this. Russia's scorched-earth policy in the last World War provides another example of a common military necessity. It seems rather shortsighted to point the accusing finger at air power when it performs these traditional functions of war with greater facility and at less cost to the attacker.

Is Air Power Too Effective?

Again the question arises, is air power *too* effective in war? Is it because not enough airmen are killed in proportion to the offensive effects of air attack that some people condemn this mode of warfare and prevent it from being fully exploited? The French military philosopher Ardant DuPicq wrote that the first principle of war was to "attempt to overcome the enemy with least possible self-injury." *

What warped thinking inspires some people to want our *own* troops to be slaughtered as a necessary condition of war? If machines in the air overcome the enemy with least self-injury to the crews, is not this what we want? In the world condition we face today, must we not of necessity find an antidote for the huge manpower opposing us?

We have the antidote in our technical proficiency. But if we fail to exploit technical capacity fully, the antidote will be neu-

* *Encyclopedia Britannica*, 1947, Vol. 13, p. 323.

tralized by a progressive enemy who will eventually integrate the most advanced mechanization with his tactics and strategy. It is a never-ending race of progress in the military art. We must stay in the lead not only technically, but also in the application of technology to strategy.

Soviet Strength

We can never afford to underestimate the power of our antagonist or his ability to digest technical progress in his huge military machine. He is striving to increase his learning, for example, by an unprecedented emphasis on education. Within his air force the outstanding officers are offered two years more of service schooling than are the comparable USAF officers.

The Soviet ability to invent and manufacture atomic explosives has been somewhat underrated. In 1946 Harold C. Urey wrote, "Most scientific and technical men who helped to produce the bomb guess [that Russia will have the atomic bomb in] between five and ten years." * But the optimistic tendency was to estimate the figure higher. Using the lower figure, we could have expected to detect a Russian explosion in 1951. Actually, the first Russian explosion as announced by President Truman occurred in September 1949.†

Estimates had been made that the Soviets would not master the hydrogen-explosion theory before 1954.‡ Since our own first experimental device was set off in April 1951,§ the detection of a highly efficient Russian thermonuclear explosion in August 1953 || becomes conclusive evidence that the technical gap in this field is rushing to a close. In fact, the chairman of the Atomic

* *One World or None*, p. 54.

† *Time*, April 12, 1954, p. 22.

‡ "Defense Strategy," *Fortune*, December 1953, p. 77.

§ *Time*, April 12, 1954, pp. 22, 23.

|| *Time*, April 12, 1954.

Energy Commission, Lewis L. Strauss, said there is good reason to believe that the Russians started work on a hydrogen bomb substantially before we did.*

Nor is Russian air power resting. The abundance of MIG-15s, a type that out-performed all first-line UN fighters except the F-86 (and this was not available in the theater when MIGs appeared), attests to amazing Soviet progress. In 1950 General Vandenberg spoke of a long-range intercontinental bomber being developed in Russia, and at the May Day review of the Russian Air Force in 1954 one of these intercontinental jet bombers was observed.

Addressing the National Security Industrial Association on October 15, 1953, General Thomas D. White, Vice-Chief of Staff of the air force, said that the Soviets now have a "fleet of long-range bombers comparable in numbers to our own Strategic Air Command. They have a stockpile of atomic bombs that is at least sufficient to justify the experimental exploding of several. They are now producing better and bigger planes along with more and more bombs."

This is all disturbing evidence that the Soviet Government has likewise made a shift in emphasis to air power, and that the shift is backed by a construction program which may well excel ours. To retain our tenuous technological lead, it appears that we must extend every effort to translate our new military policy into reality by constructing the military establishment which will correspond to the new policy.

Flexibility of Air Power

In the words of General Weyland, "Our opportunities and vulnerabilities, our capabilities, and our war objectives must always govern the strategy of employment." † This is the theme of the

* *Time*, April 12, 1954, p. 21.

† *Time*, April 12, 1954.

military policy enunciated by John Foster Dulles. We shall emphasize our military advantages. The Korean War represented a step in the use of air power as a persuasive force to attain limited objectives. A bolder and more confident step has been taken by our national leaders. In the words of the late General Vandenberg, "Air power alone does not guarantee America's security, but I believe it best exploits the nation's greatest asset—our technical skill." *

Bernard Brodie has made the point that war itself introduces new national objectives which might far outweigh prewar objectives.† This, he claims, is a contradiction to the Clausewitz definition that war is an extension of politics. Political objectives continually change, and in wartime change is naturally accelerated. But certain war events sometimes cause a reorganization of objectives. It was almost impossible, for example, to hold rigidly to the European emphasis at the beginning of World War II, because the catastrophes of Pearl Harbor, Clark Field, and Bataan compelled attention to the Far East. Similarly, it might be difficult to hold to a policy of massive retaliation directed at enemy vulnerabilities if a catastrophe for American nationals were developing in another area, such as Western Europe. In such an event, we might be compelled to direct all our forces against enemy strength in order to avert a local disaster, and we would then be fighting on the enemy's terms.

In 1944 when Allied forces were committed to Normandy, all air forces were employed in support of the landing. Had this grand effort failed, the shock to our country would have been grave indeed. It was altogether fitting and proper, therefore, that air forces were fully engaged to support the invasion. There was no threat to continental United States at that time. Air

* *Saturday Evening Post*, February 17, 1951.

† "Strategic Implications of the North Atlantic Pact," in *A History of Military Affairs in Western Society since the Eighteenth Century*, Gordon B. Turner, ed., New York: Harcourt, Brace & Co., 1953.

forces are flexible enough to be so employed at any time in the future, provided such employment does not expose the United States to greater risk. Whenever a crucial issue is at stake, for whatever reason, whether it be caused by a mistaken prediction or an enemy surprise, air power in all its strength can be concentrated to fill the breach. D-day preparation and cover over Normandy, carpet bombing at St. Lo, air supply of China, Berlin, and Korea, and a host of other examples attest to the versatility of air power which can be concentrated instantly to prevent a debacle.

But such uses of air power do not give us optimum return on our power investment. In war, gaining command of the air while concurrently enforcing an air siege over the enemy nation itself will pay us the highest military dividends. Stop-gap uses are defensive in nature and although they may be necessary, these uses should not overshadow the primary purposes of air power in war.

The Moral Question: Weapons and Survival

With knowledge of the hydrogen bomb the problem of weapon morality has been resurrected. When an enemy is dedicated to destroy us by any means, it seems perfectly right, if not morally imperative, to utilize any conceivable weapon against him in self-defense.

The discovery of atomic explosives did not change mankind. Only human beings are moral and, unfortunately, immoral. If moral forces reject the use of atomic weapons, an open invitation is tendered to the immoral forces to take over. Not until a supranational authority can definitely give assurance that no nation has the capacity to employ atomic weapons, can there be any acceptable restrictions to their use. Even then, the moral forces will be handicapped. For technical warfare fosters peace-

ful pursuits, whereas the warfare of multitudes fosters a nation-in-arms and a totalitarian militaristic government.

We cannot flirt with suicide by setting aside our firearms as the result of a gentleman's agreement with a nongentleman. "It is now the policy," said Secretary Dulles, "not to exchange United States performance for Communist promises." * And if we retain our arms, and the aggressor retains his, who shall win when the home is threatened? Both will have the technical capacity to kill the other, as in Western gun fights. But the sheriff with enough skill could let the gunman draw and still drop the desperado in his tracks before he fired. *He with the fastest draw and the best aim will survive.* Superior tactics will determine the outcome. Thus the *application* of atomic power becomes the most salient factor in the survival equation. The accent is on *speed*.

Those who speak of massive retaliation as being "purposeless destruction, wasteful militarily and indefensible morally" † are putting out the welcome mat for international desperadoes. Indeed, it would be the ultimate of immorality not to take every step possible to defend our homes and our country. If any President should fail to act vigorously to save his country, as Dwight Eisenhower said, he should be worse than impeached, he should be hanged. ‡

Only a perverted sense of morality could consider it evil to defend one's country by the most effective means available from a ruthless nation that has no compunction in keeping at least twelve million of its own population in slave labor; that has deliberately starved four million of its men, women, and children in an economic experiment of collectivization; that has killed or depopulated millions from formerly free and independent

* Speech, March 30, 1954.

† "Pros in the Pentagon Cool to 'New Look,'" *New York Times*, January 24, 1954.

‡ *Time*, March 29, 1954, p. 15.

nations, such as Estonia, Poland, and China. Such wanton and unlimited killings in time of peace will hardly be exceeded by any wartime atomic retaliation in self-defense. And the consequences of failure to retaliate are written plainly for all to see. *

All people would like to confine war to the battlefield, and it would be a boon to mankind if this were possible. This could happen if the whole world fully understood the inevitable consequences of defeat upon the loss of air superiority. Before the age of steel and steam, armed merchantmen had a chance to fight off sea raiders, and so they fought. When armored cruisers appeared in the last century, merchantmen had no chance against them whatever. Yet for decades, in the ancient custom, they fought as if they still might win. Finally it struck home that resistance was worse than useless. Now a mere shot across the bow stops the merchantman. A similar realization of the overwhelming power of air forces must come about before nations will surrender when they lose air superiority.

It is conceivable that knowledge of atomic and hydrogen bombs is now reaching all people; in fact, even Russian newspapers have recently contained items of this sort. With such knowledge war may possibly again be confined to the battlefield, *but in this case it will be the battlefield of the air.*

Never can we be certain of this limitation, however, and nations may yet have to suffer devastating air attacks. Whichever condition prevails, whether people of the world come to understand the force or not, we can be certain that, in the words of Churchill, air power is "the supreme expression of war."

Any readjustment of force levels among the armed services on the chance that atomic weapons will be outlawed, either legally or implicitly, would be as foolhardy as to become duped by the so-called moral argument. Wars may occur, unquestion-

* See O. A. Anderson, "Air Warfare and Morality," *Air University Quarterly Review*, Winter 1949, pp. 5-15, for a discussion of this subject.

ably, in which atomic weapons will not be employed, as in Korea. And the fear of full atomic employment will tend to keep such wars within limits. But if we look at military history, when objectives of a war become unlimited, involving stark national survival, no agreements restricting weapons can be counted upon to go unbroken. As General Bedell Smith puts it, "A nation, regardless of its protestations, if it feels that its national existence is threatened and that it is losing a war, will turn to any weapon that it can use." *

The Poison Gas Analogy

Perhaps those who point to the example that poison gas was implicitly outlawed in the last war fail to consider that gas effectiveness was a function of delivery and that delivery ability in any quantity rested with air superiority. When the Allies had achieved air superiority, the enemy threat had been so diminished that the Allies did not need to use it and the Germans dared not because of the consequences of retaliation.†

Certainly there was a restraint upon the use of gas, and although both sides were prepared to conduct gas warfare, neither belligerent considered the weapon decisive and hence both voluntarily refrained from its use. Had gas been used, the preventive measures demanded for both sides would have involved the total populations and unpredictable morale consequences. This presented military disadvantages which seemed excessive.‡ History provides examples of outlawing the use of cannon, but when cannon became truly effective, the ban was forgotten. Bombing of cities was outlawed before the second World War,

* "The Cold War — An Audit," *New York Times Magazine*, October 10, 1954, p. 9.

† James P. Baxter, *Scientists Against Time*, p. 270.

‡ Air Marshal Sir Robert Saundby, "Morality and War: A British View," in press, *Air University Quarterly Review*.

yet one thing led to another until both sides were paying little heed to the ban.*

The superlative power of atomic weapons puts them in a class by themselves, and comparison to poison gas leaves us open to dangerous conclusions. Submarines were banned as commerce raiders by the Washington Treaty of 1922, but since submarines used for this purpose had decisive implications, the prohibition was hardly given a second thought at the outset of the second World War. Military necessity has tended to dictate the choice of weapons, and when their use becomes habitual, questions of weapon morality are forgotten. The course of wisdom would be to prepare to use atomic weapons to the limit, with lightning speed on the draw. We all pray for that day when war can be reduced in fury or eliminated. But until then we must be ready and poised to defend our country through the use of weapons which promise success. This is the course of a higher morality.

Man Not Firepower Makes War

History does not show that the increase of firepower has had any tendency to encourage wars of extermination. It is the temper of the human beings engaged that determines what extremes a war will take before hostilities cease. The intense emotions of fear and hate make the difference, not a certain kind of bomb. The third Punic War led to the extermination of Carthage not because new weapons were forged, but because after two previous wars with Carthage, the Roman temper was so roused as to demand wholesale massacre. Although guns were developed during the horrible Thirty Years' War, these weapons were crude. Yet the inflamed passions of Europe rose to such a height

* Saundby, "Morality and War," at Geneva Disarmament Council, 1931; also, "Hague Convention of Jurists set up by Washington Conference of 1922," *Encyclopedia Britannica*, Vol. 13, p. 803.

that an estimated three fourths of the German-speaking people perished in a shocking and prolonged war that some historians consider the most cruel ever suffered by Europe. On one occasion the city of Magdeburg was sacked and its entire population of thirty thousand put to the sword. Starvation was so acute that cannibalism was practiced in some localities. The revulsion from this gruesome war led to a period of moderation.*

Weapons, notably firearms, continued to improve, but the century and a half between the Thirty Years' War and the Napoleonic wars was relatively benign. In the nineteenth century the doctrine of massed manpower tended to involve more troops, yet only the Napoleonic wars and the American Civil War created casualties in the millions. Several other wars in that century were quickly decided with fairly generous terms given the vanquished because passions had not risen to the extreme that demands retribution in blood. Absolute war in its literal sense, where extermination is the aim, has rarely been experienced in history and never can its cause be traced to weapons. Unarmed groups can kill each other off to the last man if they so choose. Men determine the degree of totality in war.

In fact, there is no historical instance of total extermination in war of the population of a state. It has not been uncommon for single cities to be wiped out, as in the case of Troy, Tyre, Carthage, and Magdeburg, but never has the whole people of a country been obliterated. Cities such as Carthage may symbolize the power of a state, and their extinction may end a dynasty. But the underlying social structure, the roots of its civilization, is by no means wiped out. It will manifest itself again in some other form of government.

The example in history which comes nearest to the absolute obliteration of a state population happened in fairly recent times.

* *Encyclopedia Britannica*, 1947, Vol. 13, p. 327.

The furious Paraguayan war between 1864 and 1870 came close to blotting out Paraguay's population.

It all happened over a border dispute, but inept diplomacy left Paraguay defending herself against a powerful coalition made up of Brazil, Argentina, and Uruguay. The little Paraguayan state of 1,337,439 souls fought with an unheard-of tenacity against her huge neighbors. Every able-bodied person was thrown into the struggle, including battalions of women and boys. Defeat found the Paraguayan population reduced to less than a quarter million of whom but 28,746 were men.

Strangely, Paraguay survived as a state. Argentine-Brazilian rivalry enabled Paraguay to retain her national identity, and today it prospers, although the population has not yet risen to its 1864 level.*

Punishment of a nation has in the past been a drawn-out process. It has been estimated that in the first World War, in addition to the 8.5 million uniformed personnel killed,† there were over 13 million civilians who died from war causes,‡ a total of 21 million. Some estimates of all deaths caused by this war run as high as 40 million.§ This was all done, one must remember, without the use of atomic bombs, and when air power was in its insignificant infancy. Four long years of attrition through surface combat and blockade took this gigantic toll.

Casualties were not appreciably greater in the second World War—a war which lasted one year longer than the other and actively involved far more of the world's population. The second World War amounted to two wars: one in Europe and one in Asia.

* *Encyclopedia Britannica*, 1947, Vol. 17, p. 259.

† *The World Almanac*, New York: The New York World Telegram, 1954, p. 732.

‡ *Encyclopedia Britannica*, 1943, Vol. 13, p. 329.

§ Quincy Wright, *A Study of War*, Vol. 1, p. 245.

A study made by the Research Studies Institute of Air University estimated 9.5 million as the total uniformed personnel killed of all nations. Over-all estimates, civilian and military, run to about 24.5 million killed — a figure comparable to the most conservative World War I estimate of 21 million. And in the second World War, firepower had made a jump step, a quantum jump, if you will, to include strategic bombardment.

It makes no historical sense, therefore, to conclude that increased firepower is responsible for increased casualties. The 305,000 * civilians killed in Germany by bombing do not approach the 7,000,000 † Germans (largely civilians) lost in the Thirty Years' War. Although many factors combine to increase the intensity of war, ‡ the emotions of the people engaged as represented by the will to continue warfare will in large measure determine the number of casualties. Regarding atomic weapons as evil instruments, therefore, and pleading for their unilateral ban is almost as shortsighted as condemning a murderer's pistol to destruction and letting the murderer go free.

Use of atomic weapons will undoubtedly cause great punishment in a very short time. If the temper of the people determines when a nation sues for peace, absolute war of the future should end in a few days, with no greater casualties than in past major wars. Such a war could conceivably be terminated with minor destruction if combined with a psychological offensive to hasten capitulation. In any case, there is little evidence from the history of war upon which to predict a Pyrrhic victory, for although the scope of destruction has expanded terrifically, the time span of war will be compressed proportionately. A people can take just so much. The evidence of history points to no characteristic in mankind that will lead him, as a race, to suicide.

* USSBS, p. 95.

† *Encyclopedia Britannica*, 1947, Vol. 25, p. 327.

‡ Wright, *A Study of War*, Vol. I, pp. 218, 248.

War itself is to be avoided. Free nations gain nothing by conquest; still they must defend themselves by all means at hand so long as materialistic forces in the world go unchecked. Although a victorious war is cruel and costly, it is inconceivably less cruel and costly than a defeat. This is the choice we must make.

The Profession of Arms

The surge of technology as applied to war has ended the era of a nation-in-arms. No longer can multitudinous manpower be relied upon to protect a nation. Survival will depend upon the rapidity of launching a well-planned and well-executed attack, an attack which may in itself decide the war. Consequently, a fully manned military establishment trained to the ultimate peak of effectiveness must be on the alert at all times.

If this strategy is accepted, the military man must become truly professional. The laurels of war, as Upton * so clearly demonstrated, have gone more often to the professional because of his superior skill and discipline. Modern times require the professional to digest a prodigious body of knowledge, technical as well as military. So a factor of extended education has been added. If speed and ability are required as foremost elements for success in war, then the concept of arming our nation with part-time soldiers who rotate in and out of the service is untenable. The modern profession of arms contains an infinite body of complex knowledge; it demands intricate skills. Learning these is often as arduous as perfecting the art of surgery. A full lifetime career is demanded of the soldier, sailor, or airman if he is to gain even a modicum of proficiency in discharging his responsibilities. Add to this the stakes involved in case the military man's performance is less than optimum, and the course of action appears crystal clear. For the long haul, the military must become a highly professional career service.

* Upton, *Military Policy*.

This does not mean, of course, that all services must consist wholly of regulars. The concept of the regular officer was based on an expandable, wartime-mobilization type of organization; consequently, regulars constitute a very small fraction of the professionals now serving. Reserves serving full time as a career are usually as professional as the regulars. The concept of the regular establishment has become outmoded with the new order. Even the civilian scientist, historian, operations analyst, production expert, and so on, is, when devoting full time as a career in national-security matters, as professional as the uniformed regular.

Moreover, if we are to survive in the long haul, military education must be offered in curricula of all institutions of higher learning, and even to some extent in secondary schools. This kind of military education should not be given in the form of training to provide legions for war machines, but in such a way as to give each voting citizen a working knowledge of war and to provide opportunities for potential statesmen to learn the higher arts of war.

When Spenser Wilkinson took the endowed chair of the first Chickle Professor of Military History at Oxford in 1909, he eloquently expressed the view which today has become a real necessity:

In our school of *Literae Humaniores* we study the idea of the state; in our schools of History, the life and growth of states. It is to this part of the University's work that the Study of War belongs. For war is one of the modes of human intercourse. . . . We are thus bound to study war if we are to cultivate true ideas or to advance a healthy learning.*

Perhaps no other subject is discussed so widely and so heatedly with such ignorance as the subject of war. Avoiding the study of war because of its repugnant consequences is as shortsighted as would be the avoidance of the problem of disease because of its

* *Military Affairs*, Vol. XVII, No. 4, Winter 1953, pp. 195-196.

harm to mankind. If war is looked upon as a social disease that needs understanding before it can be controlled, just as human disease is regarded as a physiological phenomenon, then perhaps we can study war without the emotional overtones that tend to mask all real learning. The most repulsive human diseases are dispassionately analyzed by hosts of learned investigators. Yet the rare and courageous individual who attempts to dissect the most injurious ailment of mankind, the social disease of war, is apt to be treated as suspiciously as the eighteenth century medical student who dissected a cadaver.

From the days of the Athenian gymnasia, where the art of war was a primary subject of study, to the scientific academies of Frederick the Great in the eighteenth century, the study of war has had a remarkable correlation with national strength and cultural advance. On the other side of the picture, we find that during the Middle Ages when such education as existed was largely confined to the seven liberal arts, chaos and disintegration stalked the Western world. The warnings of Cicero and Quintilian that study should stress usefulness in public life went unheeded.

The Morrill Act, passed during the American Civil War, was essentially a military measure to get higher education in tune with the hard reality of the times. Land-grant colleges were required to give military instruction in addition to the practical sciences. For some reason, the military phase failed to catch on. The spirit of isolationism, combined with the dim fears of our European feudal past when men-at-arms prevented freedom, defeated this enlightened measure to establish military education.

After our rude awakening between 1914 and 1918, ROTC was established. These departments were appended to educational institutions, but very little military science was integrated into the higher-education program. Consequently, most military education in universities was kept on a rather elementary level.

Thus it became necessary for higher military education to be conducted almost exclusively within the military services. There were few colleges in this country, for example, where one could then, or even now, take a course in military history, military management, military strategy, logistics, tactics, or military law. Such broad areas of knowledge are essential to modern military organization and employment. Scholars who were willing to learn, spread, and advance these military disciplines were sorely needed.

To fill the void, service schools, for the purpose of advancing the professional education of officers, began to appear toward the end of the last century. The first was the army's Command and General Staff School at Fort Leavenworth, Kansas. General Sherman opened its doors in 1881. Another first was the Naval War College at Newport, Rhode Island (1884), and Admiral Mahan became its second commandant. Colonel Tasker H. Bliss of the army was detailed as Mahan's assistant, and when the Army War College was established by Elihu Root in 1901, Bliss became its second commandant.

Today all three armed services have numerous advanced service schools. The Air University established at Maxwell Air Force Base, Alabama, in 1946, directs a whole system of institutions, including an Air War College comparable to the Army and Navy War Colleges. Moreover, a few joint schools, such as the National War College in Washington, D.C., have been organized since the second World War.

Yet in view of the immense volume of knowledge in the military field and of the fact that new knowledge is pouring forth in ever-increasing torrents, the service schools are too small and understaffed to assimilate the vast material alone. Military budgets are so pared and manpower so tightly organized into operating units designed to provide maximum D-day protection that

advanced schooling in the services is run on an austere basis. Such schools can permit no more than a smattering of indoctrination with the available knowledge. Good textbooks, revised yearly with new data, are rare, and research in the art of war by true professionals is a luxury seldom afforded. If the art and science of war is to advance at a speed which will assure a consistent lead over potential enemies, civilian institutions must incorporate it into the whole educational program of the nation, giving this study attention and stature equal to business, political science, or engineering.

But of greater urgency, the practitioner of this art and science should be encouraged to dedicate a lifetime of effort to his profession of arms. The extraordinary cost of his education and training should alone demand agreement on this doctrine of military professionalism. At a Washington convention on August 22, 1953, Secretary of the Air Force Talbott reported that 180,000 airmen were expected to leave the service the next year, and that each man represented an investment in training of \$14,600. The cost of this exorbitant turnover would, therefore, be over 2.6 billion dollars.* It seems reasonable to suppose that if military careers could be made as attractive as careers in civilian life, the net national savings from reduced personnel turnover would be substantial.

For example, in the Strategic Air Command, the force upon which the United States must place its faith to assure salvation, seventy per cent of the assigned airmen are on their first four-year enlistments. Although these men are volunteers, only about twenty per cent will remain for longer than the one tour of service. It is clearly evident that four out of five do not find the career an attractive one. The end result is that forty per cent of the force in which we place our ultimate trust are young men be-

* *Air Force Magazine*, October 1953, p. 24.

tween the ages of seventeen and twenty-one. The lifetime professional whose skill is developed to the highest state is a rare airman.*

General LeMay, who commands Strategic Air Command, desires a truly professional force to perform his mission.† To operate a B-47, the crewmen should have about 3500 flying hours. It takes several hours of mathematical and engineering planning simply to get a B-47 off the ground. In the air, the crew must make computations on weather, altitude, speed, weight, fuel, flight plan, armament, munitions, rendezvous, and enemy activity while hurtling through the air at close to the speed of sound. These three men, in addition to being charged with preventing enemy aircraft from taking off, possibly to destroy one of our cities, must be responsible for a highly delicate two-million-dollar machine of war. These men must each be trained — as a pilot — bombardier — radar operator — navigator — in formal schooling that runs to three years. Considering that these officers are usually college graduates and that apprenticeship to their posts of responsibility runs into several more years of training, one can appreciate the fallacy of attempting to consider this line of work a vocation rather than a distinguished and desirable full-time profession.

Of course, the air crew is the most keenly trained of any in the profession, but this operating echelon can hardly be at peak proficiency if, as in Strategic Air Command, the annual turnover runs to twenty per cent. The instant mobility required of these people creates a most unstable home life with constant moves and compounding expenses. Few can be convinced that the nation truly considers their duty to be vital if they are not compensated accordingly. Secretary Talbott has estimated that he

* John McDonald, "General LeMay's Management Problem," *Fortune*, May 1954, p. 200.

† McDonald, *Fortune*, May 1954.

could save \$250 million in annual training costs, for example, if he could spend \$100 million to make a career in the air force more attractive by improving substandard housing, restoring emoluments, and providing "just the decent things those boys should have." *

The fixed capital investment of the Strategic Air Command runs over \$10 billion. Operating expenses, including salaries, cost the government \$842 million in fiscal year 1954, and single pieces of equipment, like the B-52, run over \$8 million dollars each.† Is this not too big a piece of our national investment to be consigned to part-time officers and airmen?

It was vividly pointed out in 1953 by a Department of Defense group headed by Lewis L. Strauss, now director of the Atomic Energy Commission, that legislation has encouraged this wasteful turnover. The commission was examining the problem of hazard pay in the armed services and discovered that federal laws create a paradoxical situation "wherein the government offers a man a maximum bonus of \$360 to re-enlist, yet provides benefits worth many times that amount if he leaves the service."‡ In fact, Admiral Radford has said that GI benefits approximate \$6000. Such policies cannot possibly foster the development of a truly professional force, and they cause government expenditures that are astronomical. Both veteran benefits and costly turnover in the armed services drain the treasury of billions yearly. Laws which would create true career services would stop this drain.

As Deputy Secretary of Defense Robert B. Anderson has said:

In the glaring fierceness of a nation engaged in or preparing for mortal combat, victory all too frequently seems

* McDonald, *Fortune*, May 1954, p. 202.

† McDonald, *Fortune*, May 1954, p. 106.

‡ Lewis L. Strauss, *et al.*, *Differential Pays for the Armed Services of the United States*, Department of Defense, Washington, D.C., March 1953, p. 50.

mainly a matter of mass — of great factories, of fleets of planes and of ships, of tremendous stockpiles of weapons and supplies. But in the long afterglow comes the realization that the nation lives on because of the courage, the skill, and the resourcefulness of those into whose hands the issue of the war is ultimately committed: the soldier, half blind from exhaustion, staggering onward another few yards in the indescribable confusion of battle; the sailor, groping and drowning in the dreary wastes of the ocean's vastness; the airman, enduring the cold terror of an antiaircraft barrage in order to carry out his mission. It is these men who are the ultimate determinants of victory, for no weapon adds anything to the national security until it comes into the hands of a man who is ready to risk his life in using it. In peace, in war, and in the shadowy vale which lies between, the spirit of our Armed Forces will always lie in the fighting hearts of the individuals who animate them, who bring them up to fighting pitch.*

No profession in the world is as costly to prepare for as that of military aviation. Flying training alone represents an investment of \$61,000 in each individual. Add to this other expenses of professional education and the average cost runs over \$70,000. Despite this large public investment, inducements are so slight that approximately sixty-five per cent of all reserve pilots in the air force who have been given pilot training elect to leave the service at the end of their obligatory terms of service. Thus in the air force pilot category only, one third of a billion dollars' worth of training leaves the service yearly. What are the policies that effect such extravagant depletion of our national wealth?

Underlying the system of manning our military establishment is the minuteman concept of war which Emory Upton condemned. The burden of military service, goes the theory, should be borne by all able-bodied male citizens as a solemn obligation

* Speech at the National Armed Forces Day Dinner, Washington, D.C., May 14, 1954.

to their government. This militia concept of war was most appropriate when the Clausewitz doctrine of massed manpower was valid. Obviously, no government could afford a full-time standing army of vast numbers. Hence universal conscription came into vogue, multitudes of civilians were trained, and elaborate mobilization procedures developed. As the Strauss Commission noted:

... while in the early days of the Republic technical skills played a minor part in the Armed Forces, technical changes in methods of warfare have made it imperative to train men in advance, in time of peace, to attain proficiency in the military arts. It has, therefore, become necessary for the Armed Forces to compete with peacetime civil attractions to enroll and retain such men.*

Further on in the report the statement was made that:

Even if the government could afford the huge training costs inherent in a very rapid turnover of its aviation and submarine personnel, the great loss in experienced leadership would render such a system militarily unsound.†

If military service were considered an opportunity and a privilege, rather than an unpleasant obligation, a truly professional establishment might be possible.

No one would expect a physician or a research scientist to spend years in expensive training only to reject his calling at the very moment when he becomes truly proficient. Yet we subsidize the training of a jet-bomber pilot, giving him an education that takes as much schooling as that required to achieve a Ph.D. degree, and at a cost that would pay for six or seven Ph.D. programs. Then we show him a future that in most cases he would rather not pursue. So we are obliged to train another to

* Strauss, *Differential Pays*, p. 10.

† Strauss, *Differential Pays*, p. 15.

take his place. The expense mounts and the experience level remains relatively static.

From a national-survival standpoint, which requires maximum speed at the outset of hostilities, the conditions of rapid turnover and involuntary services hardly foster the highly skilled professional force which must exist to achieve instant and massive retaliation. It is apparent that comprehensive re-evaluation of our national concept of a military establishment is in order not only to reduce the exorbitant expenditures for lost training but also to provide the razor-sharp keenness of professional skill which will indeed respond instantly and effectively to the will of the American public in time of dire crisis. America must have a steady, stable force of career military men continually building on their capacity and ever alert for the dread signal of war.

Backing up this highly trained corps of practitioners in the military art should be a citizenry well informed on the art and sciences of war, among whom are scholars who specialize in the field, systematizing the mountainous body of knowledge, abstracting it, and teaching it. There must also be statesmen who have gone beyond rudimentary levels in the study of the military art, and who can analyze government and politics with a balanced view of the realities of national life. Had such vision been exercised in March 1951, General MacArthur, who knew the Red Chinese were desperate, would probably have been permitted to negotiate a satisfactory settlement. As it was, cease-fire agreements made by statesmen allowed the enemy to build up his forces and supplies in order to carry on for two more years of bloodshed. Clearer understanding of the facts of war would have prevented this tragic mistake.*

Since the condition of world tension appears to be one which will extend indefinitely, the National Security Council has

* See Eisenhower's Foreign Policy Speech at San Francisco, October 8, 1952, in *New York Times*, October 9, 1952.

founded its policies on the premise. The armed forces are not to be frantically built up today and drastically cut down tomorrow in a stop-and-go manner which fails to take into consideration the consistency of the Communist threat to freedom, regardless of its manifestations at the moment. Stop-and-go policies have caused military bases to be built in urgent haste at overtime prices and to be closed up before completion. Millions more have been wasted in canceled contracts for expensive equipment never delivered. Now a steady, logical growth which will permit maximum economy and recognize that the menace of war is a condition we must live with and be prepared to meet at any time is the order of the day. No longer is our policy to be one of expediency, but one of forethought. No longer will we respond with surprise to aggression. We will be prepared to conduct planned retaliation, instantly.

8. The Military Policy of the United States

. . . that this nation, under God, shall have a new birth of freedom; and that government of the people, by the people, for the people, shall not perish from the earth.

ABRAHAM LINCOLN, *The Gettysburg Address*

NEVER before in all history have such powerful and pernicious forces arrayed themselves against the causes of freedom and democracy. If mankind is to preserve his freedom in our age, we must be ever vigilant and willing, as our forefathers were, to die for the principles of liberty and justice. With this resolve, war will be less likely than if we were to follow a course of vacillation, appeasement, and faintheartedness. "If we persist in the course I have outlined," said Secretary Dulles, "we shall confront dictatorship with a task that is, in the long run, beyond its strength. For unless it changes, it must suppress the human desires that freedom satisfies — as we shall be demonstrating."

Our national leadership is strong and resolute. Policies to take us through the storms ahead have been stated fearlessly. Yet the policies can quickly become meaningless unless the American public subscribes to them and carries them out with determination. As former Secretary of State Acheson remarked, "People are the final arbiters of policy." *

* "Instant Retaliation": The Debate Continued," *New York Times*, March 28, 1954.

"We live in a world where emergencies are always possible," warned Secretary Dulles, "and our survival may depend upon our capacity to meet emergencies. Let us pray that we shall always have that capacity. But, having said that, it is necessary also to say that emergency measures — however good for the emergency — do not necessarily make good permanent policies. Emergency measures are costly, they are superficial, and they imply that the enemy has the initiative. They cannot be depended upon to serve our long-time interests.

"This 'long-time' factor is of critical importance." * Policies for the future must be planned, not improvised, and they must be projected for a long, indefinite period.

As all can see, it is no momentary crisis we face. It is an extended period of danger. Not an era of danger, but as the President has said, an "age of peril." The storm is no line squall, but an indefinite sea of rough weather with few clear skies expected. It is time to batten down the hatches and secure our gear for the long haul.

"Also," said Secretary Dulles (and here is the key to our long-haul policy), "it is not sound to become permanently committed to military expenditures so vast that they lead to 'practical bankruptcy.'" Emergency measures which create deficit budgets year after year will eventually lead to dangerous internal problems, opening up inviting vulnerabilities to the enemy. Instead, we must strive to get "maximum protection at bearable cost," for the long haul demands a sound national economy. Communism thrives on the discontent and disillusion that would accompany any economic upheaval. It would indeed be shortsighted to be secure militarily and assailable ideologically. Our national leaders are wisely examining international conflict as a total political problem, not just a military problem. Unfolding events will not panic us with emergencies.

* Speech of Secretary Dulles, January 12, 1954.

Toward National Security

One step in achieving this economy of force was urged by the President in his message on the State of the Union, January 17, 1954. "Our defense must rest on trained manpower and its most economical and mobile use. A professional corps is the heart of any security system." It is apparent that the vast and unnecessary expenditures caused by the rapid turnover in military forces cannot be endured indefinitely.

Past military legislation was designed for rapid build-up, all-out war, victory, and demobilization. Future legislation must consider the establishment and maintenance of stable armed forces which, with little or no augmentation, can emerge victorious in any armed clash, small or large, as a continuing governmental obligation.

Of immediate importance, then, is legislation which will assist in building such stable and trained forces, and which will attract able men to careers of military service. At this writing there are proposed Department of Defense bills to restore fringe benefits for servicemen which will provide them with inducements to stay with the colors. Military education has been encouraged with the authorization of an Air Academy similar to West Point and Annapolis. A great deal more needs doing to develop the professional corps necessary for our future safety, but initially real steps are being taken. As Mr. Eisenhower has said, we must "create conditions of morale and security which will retain in the career service the required numbers of long-term personnel."

Along with the efforts to produce a more stable and effective personnel structure, the organization of our military establishment is following the principle of unity of command. The National Security Council, established by law in 1947, is for the first time fully assuming its designated functions. NSC is more than a discussion group. It is a board of directors for making defense

decisions. The gravest problems of security are scrutinized, researched, and pondered. Workable solutions are arrived at to be announced as policies. All departments of government can now strive in concert toward common objectives where formerly they were sometimes working at cross purposes. Emergency measures will be reduced because policies to guide defense action in every foreseeable eventuality are emanating from this eight-man council which meets regularly. With the President as chairman, and including the Vice-President; the Secretaries of State, Defense, and the Treasury; the Directors of Foreign Operations, Defense Mobilization, and the Bureau of the Budget; and the Special Assistant to the President for National Security Affairs (General Robert Cutler), the National Security Council provides continuing direction from the highest level of executive government. It was in the chambers of the National Security Council that the policy of instant and massive retaliation was born.

The first Secretary of Defense, James Forrestal, pointed out the healthy interaction of military and political considerations in the National Security Council. "The National Security Council, by its composite membership," he said, "assures that the military problems involved in the proposed political policy will be thoroughly explored before the proposal is adopted. It thus buckles together the military and political policy."*

Backing up the National Security Council are two other civilian boards: the Planning Board (headed by Special Assistant to the President, General Cutler), which sifts and consolidates problems from the executive departments, submitting them to NSC for deliberation; and the Operations Coordinating Board, established by executive direction in September 1953. The Operations Coordinating Board, or OCB, is composed of five men charged with coordinating executive action on the policies of the NSC.

* *First Report of the Secretary of Defense*, U.S. Government Printing Office, 1948.

The chairman is the Under Secretary of State, and other members include the Deputy Secretary of Defense, the Directors of the Central Intelligence Agency and the Foreign Operations Administration (the latter also serving on the NSC), and the Personal Assistant to the President for Cold War Planning. Thus the policies emanating from NSC are not so many words tossed to the wind, because there is executive machinery designed to insure positive action on the policies.

Within the Department of Defense itself is the unified military leadership known as the Joint Chiefs of Staff, composed of the Chiefs of Staff of all services and headed by a chairman, who at this writing is Admiral Arthur W. Radford. Through the Planning Board, the Joint Chiefs of Staff supply the National Security Council with papers setting forth the military solutions to certain defense problems; NSC studies these JCS positions in the light of nonmilitary influences and announces policies which the OCB attempts to translate into action by the various executive departments, including the JCS. Thus the circle of top unity of command is complete: recommendation, decision, action.

And as Secretary Dulles remarked, this system for defense planning provides maximum deterrent at a bearable cost, because it permits military leaders to "be selective in building our military power." * No longer need vital questions of defense go unanswered, compelling separated armed forces to postulate answers which in turn lead to arguments about the specific forces needed to support conflicting policies. Today the policies are clear and consistent. All armed forces may now work in unison to further them.

Since NSC has made a basic policy decision "to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our choosing," † the way is clear to develop our mili-

* Speech, January 12, 1954.

† Speech of Secretary Dulles, January 12, 1954.

tary strength in line with the most advanced technology, which fundamentally is air power. As Admiral Radford said:

Today's emphasis is actually pointed toward the creation, the maintenance and exploitation of modern air power . . . there is no argument among military planners as to the importance of air power. Offensively, defensively and in support of other forces, it is a primary requirement.*

In the past decade air power has dramatically burst upon the public consciousness with its globe-sweeping reach, its sonic speeds, and its horrible firepower. Many people who are fully aware of all this would rather not ponder its significance because the stark conclusions seem to call for painful and revolutionary changes in their habits. Could such people be those who complain about air power being oversold? If anything has oversold air power, it is the inexorable reality of technical progress. Air power is not something to be sold, but a condition of modern life which must be soberly understood and dealt with.

Reviewing Communist threats in a New York speech, Air Force Chief of Staff General Twining said:

Of course we would like to be able to meet and stop Communist forces on the ground everywhere they move against our allies. But it is more obvious now than ever that we simply have not enough men to do that job. We do not have enough resources to overcome in surface warfare the Communist advantages in space, position and manpower.

Whether we like it or not, we simply have to depend primarily on the most powerful weapons we can create, carried over the greatest distances our planes can carry them.

We must concentrate on building powerful weapons and powerful air forces that could be decisive against the sources of Communist power within the Soviet Union itself. This is

* Speech to National Press Club, Washington, D.C., December 14, 1953, in *New York Times*, December 15, 1953, p. 31.

the principal mission of the Air Force — to strike back with everything we have when we are challenged.*

The Lag of Military Doctrine

It is a major change in policy that, in terms of defense, the dominant nature of air power as the supreme expression of technical progress is recognized at the highest levels of government. Still, this change does not negate other forms of military power. Horse cavalry did not die after Agincourt, and its colorful use by Jeb Stuart, Nathan Bedford Forrest, and others during the Civil War testifies to its effectiveness for centuries afterward. A change of emphasis does not mean that less dominant forces are obsolete. Admiral Radford clearly pointed out that "for an indeterminate period in the future, under most circumstances, air forces must be complemented by other forces. Land forces, amphibious forces, antisubmarine-warfare forces, and other well-rounded forces as necessary."† But the official admission that air power should assume the primary role in national defense is a forward step which warrants real hope for national survival.

The battle of Crécy in 1346, as we have seen, presaged the end of the armored knight who had dominated Western battlefields for ten centuries. But even Agincourt in the next century failed to shake the doctrine. In desperate efforts to retain the atavistic form, personal armament for men-at-arms was improved, the best being manufactured well after Agincourt. But better firearms strengthened still more the infantryman's position. The dashing charger weighted with protecting plates of glittering metal and gaudy plumage had such a sentimental hold on the policy makers of those days that the doctrine could not be overcome by evidence and reason.

* *Air Force Information Services Letter*, Vol. VIII, No. 3, March 12, 1954.

† *Air Force Information Services Letter*, March 12, 1954.

Marignano in 1515 is considered to be the last victory of the cataphract. But to make this possible, the French paved the way by firing artillery into the deep Swiss formations. To call Marignano a victory for armored cavalry is comparable to calling the invasion of Japan a victory for the infantry. The way had been paved by a new strategy utilizing increased technical knowledge. Then the obsolescent form was thrown in to exploit the military decision. The fictional character of Don Quixote, reverting to the venerated mounted knight, furnishes evidence of the deathlike grip this form of war had on all people. From Crécy to Marignano was one hundred and sixty-seven years.

In our century the sociological lag behind technical progress is slight by comparison. The evidence of the first World War led Mitchell, Douhet, and others to make amazingly accurate prophecies that are today largely confirmed. From 1918 to 1954 was thirty-six years. Social change based on reason and experience is indeed improving.

Unified Command

Not only has a new form of war been given recognition without the knowledge having to be painfully learned by bloody defeats, but this form has been adopted under a unified command which, in the words of Mitchell, "is essential to air forces. These cannot be operated efficiently . . . if scattered and assigned to ground and water organizations."* The United States Air Force represents this unified force in a unified military establishment.

Progress in military unification has long been under way in our service schools. Officer schools of each arm contain students and faculties from all three services. It is evident from the curricula of the National War College, the Naval War College, the Army War College, and the Air War College that war is

* *Winged Defense*, p. 221.

being studied as a task for all, not as a unilateral responsibility of a particular service or specialty.

How does the study of air power fit into this scheme? Is it not too young a science to be learned in school?

History and Air Strategy

Let us review what some of the ancient military writers had to say about a type of warfare that had the same ends as modern strategic bombing.

The earliest military author, General Sun Tzu Wu, who fought the Mongols about 500 B.C., wrote, "The supreme excellence consists in breaking the enemy's resistance without fighting." He supposedly meant that it was possible to destroy the enemy's will to fight without actually engaging in combat, for history shows that from time to time Sun Tzu by maneuver and pillage in the enemy's rear was able to achieve a satisfactory peace.

Next we read Polybius, who claimed to have fought with Philip of Macedonia sometime in the fourth century B.C. He remarked that the famous phalanx required twenty stadia (about four square miles) of open ground to be effective, and observed: "But let it, however, be supposed that such a ground may be found. If the enemy, instead of coming down on it, should lead their army through the country plundering the cities and ravaging the lands, of what use then will be the phalanx?"

It might be noted here that the ancients were so bound by tradition that the ideas of Polybius did not become generally accepted for centuries, and the armies of the Western world continued to clash in formal close-order array on picked fields.

The Romans, however, made good use of the tactics suggested by Polybius. We have the writing of Flavius Vegetius as a source of first-hand information, although he wrote when the Roman Empire was in its twilight. Nevertheless, he surveyed the whole

history of Roman warfare from the vantage point of the fourth century A.D. "It is better," wrote Vegetius, "to overcome the enemy by imposing upon him famine, surprise, or terror than by general actions, for in the latter instance fortune has often a greater share than valor."

Perhaps the greatest warrior of the Middle Ages was Genghis Khan, whom legend describes as commanding limitless hordes. We know now, however, that he led relatively small mounted armies and was nearly always outnumbered on the field of battle. He terrorized his enemies with bold inventiveness, often avoiding pitched battles by leading his enemies far from base and then striking at their food supplies and cities. His Mongol horsemen faced on one border the well-subdued Holy Roman Empire and on the opposite border, four thousand miles distant, the equally subdued Sung Dynasty, and neither of his enemies knew the other existed. He controlled this awesome domain by threatening the destruction of cities, crops, and livestock.

Jumping a few centuries, we find Frederick the Great declaring, "Hunger exhausts more surely than fighting." And it is well known that the pitched battle was not Frederick's favorite strategy. Then we find Marlborough burning crops and villages in Bavaria as a means of forcing its king to make peace.

It seems evident from examining history that the concept underlying the air siege is hoary with age and has been exercised with considerable success. It is equally evident that there has never been one single kind of war which has always proved successful. Sometimes a pattern of war develops within a single culture, as with the Greeks, where all antagonists adopt the rules of the game. Then some barbarian like Philip of Macedonia comes along and spoils it all by using a new tactic. As the British military writer General J. F. C. Fuller has observed, "Adherence to dogmas has destroyed more armies and cost more battles than anything in war."

The present is faced with more change than any period of history. In the light of our revolutionary weapons systems, the United States does not intend to adhere to the old dogmas in employing national power. We have made long strides to keep strategically abreast of our weapons, but not without the harpy of tradition calling us back to the good old days. Some may recall how one general testified to the Morrow Board in 1925: "I see no reason why the range of a military airplane should ever exceed three days' march for the infantry."

In rebuttal, Billy Mitchell made a statement that is no longer visionary:

We need great long-range airplanes to strike the enemy first. In the war of the future, to sit down on one's own territory and wait for the other fellow to come is to be whipped before an operation has ever commenced.

This followed the precept of Douhet: "Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after the changes occur."

The New Policy

Modern defense is a scientific problem which is now being solved by clear thinking and careful decision, not by compromise between conflicting interests among specialists. Shortly before he died, General Arnold said:

No longer must tradition or loud shouting or hurt feelings be the controlling factors. . . . All of us must keep our thinking elastic, resilient; our personal preferences, opinions, desires, ambitions subordinate to the general good; our vision adjusted to over-all and perhaps to uncharted horizons, rather than to limited, familiar areas.

He understood the challenge facing us in our dual effort to unify our forces and at the same time adjust our thinking so that new weapons can be most gainfully employed.

Moreover, as Mitchell predicted, "The former isolation of the United States is a thing of the past." * UN, NATO, ANZUS, OAS, the revitalized Western European Union, and the Manila Pact, all point to the fruition, in the words of Dulles, of an "international security system." † The abounding energy of Secretary Dulles in his tireless efforts to recruit all peoples of the world to the cause of decency and justice is a harbinger of peace with honor. That the collective wills of nations who oppose aggression and treachery can provide an overpowering moral force to deter the advance of brutal materialism is indeed cause for hope.

A policy has been firmly established for building and employing a military establishment which will not leave us camping cautiously behind crumbled walls while the world slowly succumbs to a vicious doctrine of fear. We shall rely on the whip-lash of counterattack with central mobile forces. We now follow a strategy urged by Jomini: "The first and most important rule in offensive warfare is to keep your forces as much concentrated as possible . . . you [thus] possess the power to throw your forces upon any exposed point of your enemy position." ‡ This sounds much like the President's "maximum mobility of action [with] . . . strategic reserves . . . centrally placed and readily deployable to meet sudden aggression against ourselves and our allies." § We shall not commit ourselves piecemeal throughout the world and be bled white by small wounds. Rather we shall be prepared to counterattack with celerity. This does not mean, of course, that we must consider the whole world America's exclusive responsibility. Only when its most

* *Winged Defense*, p. 221.

† Speech, January 12, 1954.

‡ In Halleck, *Elements of Military Art*, p. 40.

§ State of the Union message, January 17, 1954.

vital interests are at stake could the United States be expected to resort to force.

The President has further given as his first consideration in defense planning that "while determined to use atomic power to serve the usages of peace, we take into full account our great and growing number of nuclear weapons and the most effective means of using them against an aggressor if they are needed to preserve our freedom." * From this it would seem that we are prepared to respond with weapons of our own choice.

Distant outposts of American armed forces which must be maintained for local defense will declare to a prospective foe, "Don't tread on me!" For aggressive acts will cause a response of flashing retaliation from mobile central forces, just as the breaking of the glass in a jewelry showcase brings the police.

Nor will our response be confined to military action. In fact, as Secretary Dulles has said, "Our ultimate reliance is not dollars, is not guided missiles, is not weapons of mass destruction. The ultimate weapon is moral principle." † A broad understanding of statecraft combined with unity of command at the summit has placed the armed services in their proper perspective as an element of national power. All other elements of national power, ideological, political, and economic, will be brought to bear on the weaknesses of the tyranny which is enslaving one third of mankind. Guards on the bridges to this dark fortress will from time to time be overcome with reason and hope. Defections from the conspiracy of communism are vividly apparent in the steady flow to the free West of the prisoner-citizens from behind the Iron Curtain. As long as this voluntary flow continues, we can have confidence in our ideological and

* State of the Union message, January 17, 1954.

† Radio and TV Report on Berlin, February 24, 1954, State Department Pamphlet.

psychological offensive, for the migration in the other direction is usually induced by kidnaping and threat.

Our allies are growing stronger daily, both materially and spiritually, and they are looking upon us more as a partner in the cause of freedom. A London *Times* editorial in March 1954 struck a warm note:

It is worth saying once again that no nation has ever come into the possession of such powers for good or ill, for freedom or tyranny, for friendship or enmity among the peoples of the world, and that no nation in history has used those powers, by and large, with greater vision, restraint, responsibility and courage.*

NATO forces are from two to three times as effective as when General Eisenhower took command in January 1951. Airfields have increased from twenty to one hundred and twenty, and aircraft inventories rise daily. Supreme Commander General Alfred M. Gruenther says, "NATO is a thriving success." As fourteen nations face the future together in a determined crusade for freedom, we can hope for peace and human dignity.†

The Four Doctrines

The four military doctrines of *professionalism*, *unity of command*, *celerity with the counteroffense*, and *technical application*, are, for the first time in American history, in accord with the executive policy of government. They may not, of course, become true national policies until laws are enacted to support them and the public indicates its approval through direct action. Dissident elements abound, and hoary traditions nourished by

* *Time*, March 29, 1954, p. 17.

† *Armed Forces Talk*, #464, May 15, 1954.

ancestral fears of men-at-arms may weaken this brave policy. Some men will undoubtedly hold grimly to the romantic notion that glory in future war can only be secured through tried-and-true strategies of the past. Still others will urge that we withdraw into a shell, gird our borders with thousands of radar-missile-fighter walls, and forget the rest of the world. Hand-wringers will prophesy the end of civilization if we resolutely stand up to the great principles which *made* our civilization. But it can be surmised with some confidence that the enlightened American public will adopt this dynamic new policy as its own and bring it into reality.

Nor is our problem a wholly new one. History provides a remarkable parallel. Freedom has never come easily.

The Great Example of Themistocles

Before Themistocles was elected to head the government of Athens in the fifth century B.C., all Greece was trembling before the threat of Persian invasion. Persia, so vast as to stagger the imagination, loomed as an awesome menace. The independent Greek cities regarded the despotic colossus which stretched from the Hellespont to India as the ultimate threat to their liberties.

The Persians, or Medes as they were called by the Greeks, were devoted to a detested state religion, the militant creed of Zoroaster, which had enough superficial appeal to blind some converts to its true purposes of conquest and coercive rule. As with today's communism, many individuals were duped into Medism by deceptive arguments. It was an age of suspicion dominated by fear.

The Persian dictatorship had already conquered the Greek colonies in Ionia, ruling them with unpopular tyrants. These conquered Greek colonies were then compelled to turn on their mother country in support of Medism, just as centuries later

North Koreans were forced to fight their brother South Koreans. But these Persian efforts at gradual encroachment failed. The satellites revolted and turned on Persia.

To assist their kinsmen, several independent Greek states rushed in with a fleet, but it was destroyed by Median vessels off Lade on the Ionian coast. Defeat was caused by the desertion of the Samians, one of the Greek allies, at the critical moment. Tactically, those Greeks who carried the fight stood up well. Naval warfare had always been considered as pure auxiliary to land warfare, but this battle led a few visionary Greeks to see naval warfare in a new light. They were learning from their victors. Moreover, the cost of defeat was shown to all. Persia sacked and burned the rebel city of Miletus and sent its Greek population into slavery at the mouth of the Tigris. So upset were the Athenians over this bitter experience that the poet Phrynichus was fined for writing a play about it. Some Greeks must have thought the problem could be resolved by ignoring it.

Persia was now ready to invade the Greek peninsula and round out her vast hegemony by incorporating the little Hellenic states. It was then that Themistocles was elected to head the government at Athens, for he had been an uncompromising advocate of state defense. Now it was too late for the citizens to consider any other policy. Of most importance, Themistocles had a radical plan. Athens should rely primarily on a sea defense, he insisted. But this unorthodox policy found scant favor. A rival statesman who represented the farmers of Attica, Aristides, and a strong general, Miltiades, advocated the use of heavy infantry, even if outnumbered, as a tried and true defense. They wrested political power from Themistocles, compelling him to abandon his naval program.

War was imminent, and the Persian despot Darius sent heralds to Greece demanding "earth and water" in a partly successful psychological offensive. The northern Thessalian cities

defected, while Thebes and Argos sought peace by appeasement. But Athens and Sparta clung together, determined to resist to the end.

Storms destroyed many of the invading vessels, but a strong force got ashore at Eritria and subdued that city just north of Attica in six days. Pillage and slavery were the unhappy fate of the population. Then the Persians crossed the strait to the plain of Marathon, where the Athenians under Miltiades attacked them on the double. The invaders were thrown into confusion and retreated to their fleet. It was a resounding victory for the Greeks, but hardly more than a lost skirmish for the Persians, who were certain to return with greater forces drawn from their unlimited storehouses of treasure and manpower.

Greek hopes were revived, nonetheless, and the heavy-infantry policy of Miltiades was vindicated. But for a strange quirk of fate, no change in the policy would have been made. Miltiades, in attempting to collect tribute from Greek states that had defected to the Medes, lost an expensive expeditionary force of seventy ships. There was also some question of corruption in connection with the tribute. With Miltiades in disgrace, Themistocles regained political control of Athens and reinstituted his naval policy with a frantic building program.

Nine years after Marathon, the Persians were again on the march. Halted momentarily at Thermopylae, the great horde flowed southward, consuming all in its path. Themistocles moved the people of Athens to the island of Salamis and arrayed his allied fleet in the straits. Swarming over Attica, the Medes burned the proud city of Athens while its population watched the flames from Salamis. Even at this late date, an Athenian faction was advocating a return to the land policy, but Themistocles was resolute. He threatened to resign and sail to Italy unless all rallied to his strategy.

Storms had reduced the Persian armada to something like

three hundred and fifty warships* when they rashly attacked through the mouth of the strait. The Greek allies met them with three hundred vessels but took on the invaders in detail as they sailed into the narrows, sending half to the bottom before the remnant fled. The Persian leader, Xerxes, watching this debacle from shore, decided to abandon his expedition.

Shrewd Themistocles, seeing a chance for a crushing victory, urged his captains to sail immediately for the Hellespont and destroy the bridge of ships that Xerxes had built for his line of communications. This would have isolated the Persians in hostile territory. But Themistocles' persuasions struck no spark in his unimaginative followers, and fighting continued another year until Sparta defeated the depleted Persian occupation force at Plataea. Nevertheless, in this war it was primarily sea power that ended once and for all the armed menace of Persia. The revolutionary naval policy had proved successful against a foe wedded to massive land power.

The wise decision Themistocles made was as revolutionary as the one recently made by our National Security Council. Five centuries before Christ sea power had never been relied upon as a primary means for waging war, just as air power has never, before today, been so regarded. Themistocles' decision was condemned by the great heroes such as Miltiades, who ten years before had routed the Persians in a glorious battle. The decision was fought by the farmers of Attica, who could not countenance seeing their crops devastated, and by the property owners, who were repelled at the thought of their buildings going up in flames.

But Themistocles recognized the inevitable. He realized that appeasement would have led Greece to the fate of the Ionians. And he recognized that more precious than wealth and property,

* Rear Admiral Charles R. Brown, *A Brief History of Sea Power*, Air University Pamphlet, May 1949.

more precious even than their beloved city of Athens, was freedom from slavery.

President Eisenhower has told us that there are risks in the new policy, "but we do not have to be hysterical. We can be vigilant; we can be Americans. We can stand up and hold up our heads and say, 'America is the greatest force that God has ever allowed to exist on his footstool.' As such, it is up to us to lead the world to a peaceful and secure existence, and I assure you we can do it." *

Let us pray that we shall not have to defend our liberty by fire, but let us prize our liberty above all fear of conflict. Liberty itself is a dynamic force which is inherent in the heart of every slave. With encouragement it can spread throughout the world and provide the bulwark for a just and cooperative world order. Abraham Lincoln once said, "Our reliance is in the spirit which prizes liberty as the heritage of all men, in all lands everywhere." With our national leaders standing up boldly as the champions of freedom and decency, yet with their eyes alert to the evil forces which exist in this imperfect world, we have no reason to fear for our future.

* Radio and TV address, April 5, 1954, from report of Ed Creagh, *Birmingham News*, April 6, 1954.

Appendix

*Text of speech by John Foster Dulles,
Secretary of State, before the Council on
Foreign Relations, New York, N. Y., Jan-
uary 12, 1954*

It is now nearly a year since the Eisenhower Administration took office. During that year I have often spoken of various parts of our foreign policies. Tonight I should like to present an over-all view of those policies which relate to our security.

The Good in Past Policies

First of all, let us recognize that many of the preceding foreign policies were good. Aid to Greece and Turkey had checked the Communist drive to the Mediterranean. The European Recovery Program had helped the peoples of Western Europe to pull out of the postwar morass. The Western powers were steadfast in Berlin and overcame the blockade with their airlift. As a loyal member of the United Nations, we had reacted with force to repel the Communist attack in Korea. When that effort exposed our military weakness, we rebuilt rapidly our military establishment. We also sought a quick build-up of armed strength in Western Europe.

These were the acts of a nation which saw the danger of Soviet Communism; which realized that its own safety was tied up with that of others; which was capable of responding boldly

and promptly to emergencies. These are precious values to be acclaimed. Also, we can pay tribute to Congressional bipartisanship which puts the nation above politics.

The Insufficiency of Past Policies

But we need to recall that what we did was in the main emergency action, imposed on us by our enemies.

Let me illustrate:

1. We did not send our army into Korea because we judged, in advance, that it was sound military strategy to commit our army to fight land battles in Asia. Our decision had been to pull out of Korea. It was Soviet-inspired action that pulled us back.

2. We did not decide in advance that it was wise to grant billions annually as foreign economic aid. We adopted that policy in response to the Communist efforts to sabotage the free economies of Western Europe.

3. We did not build up our military establishment at a rate which involved huge budget deficits, a depreciating currency, and a feverish economy because this seemed, in advance, a good policy. Indeed, we decided otherwise, until the Soviet military threat was clearly revealed.

We live in a world where emergencies are always possible, and our survival may depend upon our capacity to meet emergencies. Let us pray that we shall always have that capacity. But, having said that, it is necessary also to say that emergency measures—however good for the emergency—do not necessarily make good permanent policies. Emergency measures are costly, they are superficial, and they imply that the enemy has the initiative. They cannot be depended upon to serve our long-time interests.

The Need for Long-Range Policies

This "long-time" factor is of critical importance.

The Soviet Communists are planning for what they call "an entire historical era," and we should do the same. They seek, through many types of maneuvers, gradually to divide and

weaken the free nations by overextending them in efforts which, as Lenin put it, are "beyond their strength, so that they come to practical bankruptcy." Then, said Lenin, "our victory is assured." Then, said Stalin, will be "the moment for the decisive blow."

In the face of this strategy, measures cannot be judged adequate merely because they ward off an immediate danger. It is essential to do this, but it is also essential to do so without exhausting ourselves.

When the Eisenhower Administration applied this test, we felt that some transformations were needed.

It is not sound military strategy permanently to commit United States land forces to Asia to a degree that leaves us no strategic reserves.

It is not sound economics, or good foreign policy, to support permanently other countries; for in the long run, that creates as much ill will as good will.

Also, it is not sound to become permanently committed to military expenditures so vast that they lead to "practical bankruptcy."

Change was imperative to assure the stamina needed for permanent security. But it was equally imperative that change should be accompanied by understanding of our true purposes. Sudden and spectacular change had to be avoided. Otherwise, there might have been a panic among our friends, and miscalculated aggression by our enemies.

We can, I believe, make a good report in these respects.

Collective Security

We need allies and collective security. Our purpose is to make these relations more effective, less costly. This can be done by placing more reliance on deterrent power, and less dependence on local defensive power.

This is accepted practice so far as local communities are concerned. We keep locks on our doors, but we do not have an armed guard in every home. We rely principally on a community security system so well equipped to punish any who break in

and steal that, in fact, would-be aggressors are generally deterred. That is the modern way of getting maximum protection at a bearable cost.

What the Eisenhower Administration seeks is a similar international security system. We want, for ourselves and the other free nations, a maximum deterrent at a bearable cost.

Local defense will always be important. But there is no local defense which alone will contain the mighty land power of the Communist world. Local defenses must be reinforced by the further deterrent of massive retaliatory power. A potential aggressor must know that he cannot always prescribe battle conditions that suit him. Otherwise, for example, a potential aggressor who is glutted with manpower might be tempted to attack in confidence that resistance would be confined to manpower. He might be tempted to attack in places where his superiority was decisive.

The way to deter aggression is for the free community to be willing and able to respond vigorously at places and with means of its own choosing.

So long as our basic policy concepts were unclear, our military leaders could not be selective in building our military power. If an enemy could pick his time and place and method of warfare — and if our policy was to remain the traditional one of meeting aggression by direct and local opposition — then we needed to be ready to fight in the arctic and in the tropics; in Asia, the Near East, and in Europe; by sea, by land, and by air; with old weapons and with new weapons.

The total cost of our security efforts, at home and abroad, was over \$50 billion per annum and involved for 1953 a projected budgetary deficit of \$9 billion, and \$11 billion for 1954. This was on top of taxes comparable to wartime taxes, and the dollar was depreciating in effective value. Our allies were similarly weighed down. This could not be continued for long without grave budgetary, economic, and social consequences.

But before military planning could be changed, the President and his advisers, as represented by the National Security Council, had to take some basic policy decisions. This has been done. The basic decision was to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our

choosing. Now the Department of Defense and the Joint Chiefs of Staff can shape our military establishment to fit what is *our* policy, instead of having to try to be ready to meet the enemy's many choices. That permits of a selection of military means instead of a multiplication of means. As a result, it is now possible to get, and share, more basic security at less cost.

The Far East

Let us now see how this concept has been applied to foreign policy, taking first the Far East.

In Korea this Administration effected a major transformation. The fighting has been stopped on honorable terms. That was possible because the aggressor, already thrown back to and behind his place of beginning, was faced with the possibility that the fighting might, to his own great peril, soon spread beyond the limits and methods which he had selected.

The cruel toll of American youth and the nonproductive expenditure of many billions have been stopped. Also our armed forces are no longer largely committed to the Asia mainland. We can begin to create a strategic reserve which greatly improves our defensive posture.

This change gives added authority to the warning of the members of the United Nations which fought in Korea that if the Communists renewed the aggression, the United Nations' response would not necessarily be confined to Korea.

I have said, in relation to Indochina, that if there were open Red Chinese Army aggression there, that would have "grave consequences which might not be confined to Indochina."

I expressed last month the intention of the United States to maintain its position in Okinawa. This is needed to ensure adequate striking power to implement the collective-security concept which I describe.

All of this is summed up in President Eisenhower's important statement of December 26. He announced the progressive reduction of the United States ground forces in Korea. He pointed out that United States military forces in the Far East will now feature "highly mobile naval, air, and amphibious units," and he said in this way, despite some withdrawal of land forces, the

United States will have a capacity to oppose aggression "with even greater effect than heretofore."

The bringing home of some of our land forces also provides a most eloquent rebuttal to the Communist charge of "imperialism."

NATO

If we turn to Europe, we see readjustments in the NATO collective-security effort. Senator Vandenberg called the North Atlantic Treaty pledges "the most practical deterrent and discouragement to war which the wit of man has yet devised." But he said also that "if the concept and objective are to build sufficient forces in being to hold the Russian line . . . it presents ruinous corollaries both at home and abroad."

In the first years of the North Atlantic Treaty Organization, after the aggression in Korea, its members made an emergency build-up of military strength. I do not question the judgment of that time. The strength thus built has served well the cause of peace. But the pace originally set could not be maintained indefinitely.

At the April meeting of the NATO Council, the United States put forward a new concept, now known as that of the "long haul." That meant a steady development of defensive strength at a rate which will preserve and not exhaust the economic strength of our allies and ourselves. This would be reinforced by the striking power of a strategic air force based on internationally agreed positions.

We found, at the Council of last December, that there was general acceptance of the "long-haul" concept and recognition that it better served the probable needs than an effort to create full defensive land strength at a ruinous price.

EDC

One of the emergency aspects of NATO is that it was begun before there was a solid foundation.

For example, Western Europe cannot be successfully defended without a defense of West Germany. West Germany

cannot be defended without help from the Germans. German participation is excluded by the armistice arrangements still in force.

The West German Republic needs to be freed from the armistice, and new political arrangements should be made to assure that rearmed Germans will serve the common cause and never serve German militarism.

The French produced a plan to take care of this matter. It was to create a European Defense Community, composed of France, Italy, Belgium, the Netherlands, Luxembourg, and West Germany. They would have a European Army, including Germans, but there would be no national armies in Western Europe.

A treaty to create this Defense Community was signed in May 1952. But when the Eisenhower Administration took office last January, no government had sought parliamentary ratification, and the project was nigh unto death.

President Eisenhower is deeply convinced that there can be no long-term assurance of security and vitality for Europe, and therefore for the Western world including the United States, unless there is a unity which will include France and Germany and end the disunity which has led to recurrent wars, and in our generation to two World Wars. As NATO's Chief Commander, and now as President, he continues to make clear the importance which the United States attached to the consummation of the European Defense Community and, we would hope thereafter, a Political Community.

Until the goals of EDC are achieved, NATO and, indeed, future peace are in jeopardy. Distrust between France and Germany is inflammable and already Communist agents are looking to it as a means for international arson.

There are, of course, immense difficulties in the way of the final consummation of Franco-German unity. But we have confidence that peace will soon have the indispensable foundation of the EDC.

Economic Aid

New collective-security concepts reduce nonproductive military expenses of our allies to a point where it is desirable and

practicable also to reduce economic aid. There was need of a more self-respecting relationship, and that, indeed, is what our allies wanted. Trade, broader markets, and a flow of investments are far more healthy than intergovernmental grants-in-aid.

There are still some strategic spots where the local governments cannot maintain adequate armed forces without some financial support from us. In these cases, we take the judgment of our military advisers as to how to proceed in the common interest. For example, we have contributed largely, ungrudgingly, and I hope constructively to end aggression and advance freedom in Indochina.

The Technical Assistance Program is being continued, and we stand ready to meet nonrecurrent needs due to crop failures or like disasters.

But, broadly speaking, foreign budgetary aid is being limited to situations where it clearly contributes to military strength.

The Hope

In the ways I outlined we gather strength for the long-term defense of freedom.

We do not, of course, claim to have found some magic formula that ensures against all forms of Communist successes. It is normal that at some times and at some places there may be setbacks to the cause of freedom. What we do expect to ensure is that any setbacks will have only temporary and local significance, because they will leave unimpaired those free-world assets which in the long run will prevail.

If we can deter such aggression as would mean general war, and that is our confident resolve, then we can let time and fundamentals work for us. We do not need self-imposed policies which sap our strength.

The fundamental, on our side, is the richness — spiritual, intellectual, and material — that freedom can produce and the irresistible attraction it then sets up. That is why we do not plan ourselves to shackle freedom to preserve freedom. We intend that our conduct and example shall continue, as in the past, to show all men how good can be the fruits of freedom.

If we rely on freedom, then it follows that we must abstain

from diplomatic moves which would seem to endorse captivity. That would, in effect, be a conspiracy against freedom. I can assure you that we shall never seek illusory security for ourselves by such a "deal."

We do negotiate about specific matters but only to advance the cause of human welfare.

President Eisenhower electrified the world with his proposal to lift a great weight of fear by turning atomic energy from a means of death into a source of life. Yesterday, I started procedural talks with the Soviet Government on that topic.

We have persisted, with our allies, in seeking the unification of Germany and the liberation of Austria. Now the Soviet rulers have agreed to discuss these questions. We expect to meet them soon in Berlin. I hope they will come with a sincerity which will equal our own.

We have sought a conference to unify Korea and relieve it of foreign troops. So far, our persistence is unrewarded, but we have not given up.

These efforts at negotiation are normal initiatives that breathe the spirit of freedom. They involve no plan for a partnership division of world power with those who suppress freedom.

If we persist in the courses I outline, we shall confront dictatorship with a task that is, in the long run, beyond its strength. For unless it changes, it must suppress the human desires that freedom satisfies — as we shall be demonstrating.

If the dictators persist in their present course, then it is they who will be limited to superficial successes, while their foundation crumbles under the tread of their iron boots.

Human beings, for the most part, want simple things. They want to worship God in accordance with the dictates of their conscience. But that is not easily granted by those who promote an atheistic creed.

They want to think in accordance with the dictates of their reason. But that is not easily granted by those who represent an authoritarian system.

They want to exchange views with others and to persuade and to be persuaded by what appeals to their reason and their conscience. But that is not easily granted by those who believe in a society of conformity.

They want to live in their homes without fear. But that is not easily granted by those who believe in a police-state system.

They want to be able to work productively and creatively and to enjoy the fruits of their labor. But that is not easily granted by those who look upon human beings as a means to create a powerhouse to dominate the world.

We can be sure that there is going on, even within Russia, a silent test of strength between the powerful rulers and the multitudes of human beings. Each individual no doubt seems by himself to be helpless in this struggle. But their aspirations in the aggregate make up a mighty force.

There are signs that the rulers are bending to some of the human desires of their people. There are promises of more food, more household goods, more economic freedom.

That does not prove that the Soviet rulers have themselves been converted. It is rather that they may be dimly perceiving a basic fact; that is, that there are limits to the power of any rulers indefinitely to suppress the human spirit.

In that God-given fact lies our greatest hope. It is a hope that can sustain us. For even if the path ahead be long and hard, it need not be a warlike path; and we can know that at the end may be found the blessedness of peace.

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